1-1-1997

Preservice teachers' voices : images of teaching and the self.

Irena Bozin-Mirkovic
University of Massachusetts Amherst

PRESERVICE TEACHERS' VOICES:
IMAGES OF TEACHING AND THE SELF

A Dissertation Presented

by

IRENA BOZIN-MIRKOVIC

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

September 1997

School of Education

PRESERVICE TEACHERS' VOICES: IMAGES OF TEACHING AND THE SELF

A Dissertation Presented

by

IRENA BOZIN-MIRKOVIC

Approved as to style and content by:

J. Kevin Nugent, Chair

Grace J. Craig, Member

Mary F. Belenky, Member

Bailey W. Jackson, Dean
School of Education

ACKNOWLEDGMENTS

I am grateful to all these people for supporting this dissertation in various ways:

Amandla - for grounding me on the earth while aiming for the sky;

Ann Becker - for giggling and jumping together and for her feedback;

Ariane Goodwin - for giving me the tools to understand myself and others, for allowing me to piggy-back on her own research, and for being the sharpest critic of my work;

Biljana Kasic - for demystifying the ending of the process;

Biljana Miljanovic - for opening up the emotional domain;

Duska Torbica - for the inspiration to go on, for being there through all the ups and downs, and for growing up alongside;

Fang Liu - for her understanding and for asking simple questions that mirrored the problems and facilitated solutions;

Grace Craig - for the clarity and breadth of her views, as well as for anticipating the next steps to come;

Ivo Bozin - for the trust he had and for staying behind my back regardless of what I did;

Ivan Mirkovic - for providing the space for growth and change, and for his love and support along the way;

Kevin Nugent - for respect from the beginning and for the ongoing support, encouragement, and trust, even at times when I did not have trust in myself;

Mara Bozin - for opening me up to verbal as well as nonverbal languages;

Mary Belenky - for honest and inspiring conversations, for ideas on how to go further, for her time, energy and seriousness in reading the raw data and drafts of my writing;

Meg Cline - for being available when I needed her most, and for showing me how to say what I wanted to say without being prescriptive;

Sheridan Bartlett - for her inspiring dissertation and for the moral standards she set for herself as a researcher;
Tibor Mirkovic - for his delightful self;
Vanja Torbica - for his love.

I also want to recognize some of the many inspiring teachers I had, who contributed to the formation of my own teacher identity that was also a part of this process: Albertina Navarro, Allan Arnaboldi, Cynthia Rosenberger, Dorothy Lange, Eveline Macdougall, Frances Hitchens, Karen Dimmock, Lenore Carlisle, Maja Uzelac, Maurianne Adams, Nick Jaffe, Paul Lipman, Ruth Segula, Ysaye Barnwell.

The School of Education — as an institution — provided a safe, nurturing, and stimulating environment for this journey. I felt fortunate to be there. The staff was specially supportive. Thanks to Nancy Burnett, Sally Dumont and Jane Sibley. Thanks to the associate dean John Carey. Thanks to George Forman who encouraged me to pursue the doctorate many years ago. Since then the department/program was in the constant process of transformation as it changed its name, make-up, and affiliation within the School of Education more than once, redefined its purpose and goals while I was going through a similar process of redefining my professional interests on the individual scale. I appreciate the financial support as well as responsibilities and independence I had as a teaching assistant working with Meg Cline, Grace Craig and Cynthia Rosenberger.

I am indebted to all students who took part in this research. I hope that the participation in the study was conducive to their development in some way. Thanks to: Ann, Amy, Becky, Brooke, Cindy, John, Karen, Kateri, Kathleen, Matthew, Melissa, Sara, Stefanie, and Susan.

ABSTRACT

PRESERVICE TEACHERS' VOICES: IMAGES OF TEACHING AND THE SELF

SEPTEMBER 1997

IRENA BOZIN-MIRKOVIC, B.S. EQUIVALENT UNIVERSITY OF ZAGREB

M.ED., UNIVERSITY OF MASSACHUSETTS AMHERST

ED. D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor J. Kevin Nugent

In the last decade there has been a surge of interest in preservice teachers' thinking. By and large, research studies have focused on the final student teaching period of preservice teacher education. However, little is known about future teachers' perspectives on teaching and the self prior to student teaching.

This study — based on social constructivism and dialectical approach to teacher socialization — examined the biographies, notions of identity, epistemological perspectives, and current views about teaching of 15 entering preservice teachers at a large state university, using qualitative analysis of in-depth interviews. Interview questions focused on participants' interpretation of their educational experiences, their perspectives of themselves as learners, and their ideas about teaching.

The results are presented in relation to the three themes: images of the self, images of teachers and teaching, and towards the image of self as a teacher. Participants' perspectives of themselves as knowers as well as their social group memberships significantly affected their notions of themselves as teachers, their perceptions of their future students, and their priorities in teaching. The results indicate the importance of opportunities to experience mastery in the domains preservice teachers would teach like math, science, or writing, and the need for inquiry into metaphors describing teachers and images of teaching during teacher education. The case is made for including epistemology in the content of teacher education curricula.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Background

The field of teacher education in the U.S. is characterized by several questions and controversies that have been at the center of educational debates for decades. They are related to a search for an "adequate" or "best" preparation for future teachers. While the discussions and trends about this issue have long been shaped by educational and political authorities, they have also been a topic of interest for classroom teachers and parents. With the steady decline of confidence in the quality of public education in the last decade (Sikula, 1990), the question of how future teachers are educated has become increasingly relevant.

Historical Perspective

Teacher education in this country has been in constant flux, in a state of reform, and "improvement" since the first normal schools for teacher training were opened in the first half of the nineteenth century. Goodlad (1990) pointed to the ineffectiveness and the repetitious nature of reforms in teacher education which were rarely connected to the actual reforms of elementary and secondary schools. Three important characteristics of teacher-training institutions during the normal school era of the last century were:

> - normal schools arose as a way to meet a pressing social need for trained teachers, not to pursue theory and research in education,
> - the emphasis of education in normal schools was on technical or how-to matters,
> - they were not influenced by the liberal arts traditions of the universities.(Sarason et al, 1986, p. 22)

The discussion about the importance of liberal arts education for teachers has been important in teacher education since that period.

The first half of 20th century was characterized by the transformation of normal schools into teachers colleges, most of which evolved later to become the state colleges and universities. These transformations were accompanied by a stronger theoretical emphasis in teacher education (Sarason et al., 1986). John Dewey's "new pedagogy" in the beginning of this century, triggered the reexamination of the content and methods of education, including the education of teachers (Sarason et al., 1986). Goodlad (1990), on the other hand, characterized this period of the first half of 20th century by "a severe loss of identity for teacher education" (p. 73). He pointed that teacher education programs were not considered priorities within state colleges and universities, or even within schools of education.

Conway (1987) analyzed the causes and consequences of the fact that teaching in public elementary and secondary schools in the U.S. has been a female profession. Towards the end of the nineteenth century 65% of teachers were women, the average age of a female teacher was 23, and they were discouraged from staying in teaching once they married (p. 138). American teachers were less educated than their European colleagues; many did not complete high school, and they were typically recruited from rural families. Most women teachers taught for only a couple of years before getting married. Conway linked the recruitment of women into teaching to the political and economic forces in the middle of 19th century. The establishment of the common schools combined the ideal of wide access to public education with concern to provide public education at minimal cost to the taxpayers. As opposed to an elite education that existed at that time, common schools were limited in their academic goals. Women were recruited as teachers since their salaries could be lower than men's and their perceived gender characteristics (ability to influence children's behavior through emotions) and lack of academic preparation, matched the idea of

the utilitarian public education that would serve parents' needs. The consequence of recruiting women into teaching in the U.S. was that the climate of American schools was more child-focused and less academic than European schools at that time. It also fostered the belief that teaching was based on love for children. In the 1930's the ratio of men to women teachers in elementary school grew to one in nineteen. The effort to attract more men into the teaching profession, or to raise the requirements for academic preparation of teachers, was often discarded as too costly. Conway concluded that the ambivalence about the goals of public education (whether it should teach morals or intellect) was still present nowadays. She also claimed that it was the assumptions about the gender, emotional, and intellectual characteristics of the teachers, that have coincided with economic priorities and beliefs about the purpose of public schooling, not the sex of teachers per se, that nowadays still affected the outcomes of public schooling in America.

Trends In Teacher Education Research in the Last 25 Years

The answer to the question of optimal preparation of teachers was sought by the majority of educational authorities in the 1960's and 1970's through process-product research that reflected the positivist paradigm prevalent at that time (Tom & Valli, 1990, Gage 1989). The assumption of this paradigm is that the educational outcomes, that are measurable, are causally related to certain teacher behaviors. These behaviors were manipulated in experimental settings to identify the procedures that would maximize student learning. From this perspective, future teachers needed to learn the most effective procedures or techniques, in order to implement them in their classrooms. The term "teacher training" that was still prevalent in this period reflects this underlying assumption. Another feature of teacher education in this period is the emergence of the ecological perspective that focuses on the context, in this case the context of teaching (Sarason et al.,1986, Sarason 1971). The assumption of this school of thought — that originated in

sociology and cultural anthropology — has been that in order to understand a problem, it needs to be observed not in isolation as a generic problem, but in its context.

The 1980's and 1990's could be characterized by a growing awareness of the complexity of the problems of educating future teachers. Some sources continued to seek the solutions in different or more rigorous teacher education courses — what Feiman-Nemser (1990) called structural alternatives. At the same time a new conceptual vision of teacher preparation seems to have emerged — personal, and critical/social. Personal orientation in teacher education focuses on a teacher as a learner, and teacher's personal development is considered the goal of teacher preparation (Feiman-Nemser, 1990). This orientation is related to Nodding's (1984, 1988) concept of ethics of caring. The critical/social orientation focuses on teachers' awareness of their responsibilities to students and society (Feiman-Nemser, 1990). Critical theorists (Shor, 1987, 1992, Giroux & McLaren 1986) pointed to the embeddedness of the issue of "good" teacher education in the cultural values and ideologies of the society that reproduces the unequal share of resources through the educational system.

This is also a time of surging interest in cognitive research on teaching. Instead of the prior focus on studying teacher behavior, research on teachers' thinking has increased. Topics studied include teachers' beliefs, reflections, and cognitive constructs. At the same time new research paradigms associated with qualitative research have been based on the premise that it is essential to understand the individual's process of "meaning making" or interpreting experiences. Most of this research follows the epistemological tradition of phenomenology or interpretivism (Tom & Valli 1990, Gage 1989). The issues in teacher education have been examined increasingly from the point of view of preservice teachers.

Current Controversies

Recent studies confirmed Sarason's (1986) hypothesis that preservice and novice teachers were not satisfied with the education they had received from teacher education programs (Feiman-Nemser, 1983), and that teacher preparation was not viewed as an important source of knowledge (Book et al., 1983). The claim that "teachers are more painfully aware than any other professional group of the inadequacies and irrelevance of their training" (Sarason et al., 1986), still holds true.

The interpretations of these findings varied. While some teacher educators tried to push the pendulum forward toward meeting the needs of preservice teachers that were considered developmental, others warned against it. This other group of teacher educators believed it was important to provide a long term learning environment that would help preservice teachers in broadening their current perspectives, instead of satisfying their immediate concerns. Sarason et al (1986), hypothesized that the source of teacher dissatisfaction is rooted in "their training, (that) did not illuminate the nature of their learning process and how it relates to and affects the learning process of their pupils" (Sarason et al. 1986, p. 118). These authors, therefore claimed, that despite much debate in the area of teacher education, the content and methods of teacher education are of little relevance to later teaching. They proposed more research of teacher education programs, and they were concerned that the "culture of schools" might be resilient to change.

Haberman (1989) located the problems of teacher education in the societal context. He pointed to the need for more general education that would reflect the American value of democracy, as opposed to two other dominant trends that argue, respectively, for more effective methods courses, and more liberal arts coursework in a particular discipline.

> The pathetic cry of the 45.000 professors of education who complain that preservice teachers and inservice teachers want only 'how-to', 'tricks-of-trade', and the 'hands-on' experiences demonstrates a monumental ignorance. These values of immediacy, practicality,

> relevance, utility - all of which lead to occupational success and achievement - are precisely what most Americans want, not only from their professional schools, but also from their elementary and high schools. (Haberman 1989, p.64)

According to Haberman, the problems of preservice teachers and teacher educators cannot be solved because they reflect the conflicting nature of two dominant values of the American society — democracy and efficiency. The issue of optimal teacher preparation will be further clarified in the next chapter by reviewing different perspectives on teacher development.

Another controversy in this research area focuses on the effects of teacher education programs on future teachers. While some research findings suggested preservice teachers perspectives were relatively stable and did not change significantly during the whole period or parts of preservice teacher education (Rodriguez 1993, Weinstein 1990, O'Laughlin 1990, Feiman-Nemser & Buchmann 1985, Tabachnick & Zeichner 1985), other studies documented significant change in preservice teachers' attitudes, beliefs, and expectations (Freeman 1991, Hollingsworth 1989, Grossman & Richert 1988). The results of a recent study of six science student teachers are illustrative: "[Student teachers] adjusted and readjusted their perspectives to fit into the restraints encountered in the school context. Nevertheless, they did not seem to lose the essence of their prior beliefs about teaching and learning" (Rodriguez 1993, p. 220). Since the challenge for teacher education is to change preservice teachers ideas about teaching from common sense to professional thinking (Feiman-Nemser & Buchmann, 1986), the question of whether teacher education meets this challenge is important. There is a consensus among researchers about the importance of addressing entering teachers' beliefs as a first step toward changing them. For example, Feiman-Nemser & Buchmann argue:

> The findings reveal how difference in personal history and formal preparation can help or hinder the transition from common sense to professional thinking. ... They also suggest that very little normatively correct learning can be trusted to come about in teacher preparation without instruction that takes into account the preconceptions of

> future teachers - preconceptions that are warranted in common sense and the conventional practice. Without help in examining current beliefs and assumption, teacher candidates are likely to maintain conventional beliefs and incorporate new information or puzzling experience into old frameworks. Our thesis has implications for the charge that teachers are conservative and individualistic. The lack of explicit teaching in teacher education, not unalterable facts about teachers, may explain these features of teacher thinking. (Feiman-Nemser & Buchmann 1985, p.29)

Mertz & McNeely (1992) came to a similar conclusion:

> If we are to make a difference in the effectiveness of the persons we prepare, we will have to take the idea of different, persistent, strongly-held pre-existing cognitive constructs about teaching amongst our students more seriously. If there is any hope of altering the ones they may hold that are antithetical to knowledge-based theories, it lies in exploring, exposing, and testing the viability of the theories students bring with them, each different one. If it is not possible to radically alter the constructs they bring, then our task may be to help them operationalize the constructs they hold, each one of them, most effectively and thoughtfully. (Mertz & McNeely 1992, p.12)

Statement of the Problem

A debate in the last decade has focused on the relevance of research about teachers' thinking, and the ability of this research to inform practice (Clark 1988, Floden & Klinzing 1990, Lampert & Clark 1990, Kagan 1990). Tom & Valli (1990) summarize different views about the relationship between research and practice that underlie this controversy. They identify four typologies of the knowledge-practice link found in the research. These are:

1. knowledge as a source of rules for practice (direct link);
2. knowledge as a source of schemata that inform practice (indirect link);
3. knowledge as a source of value premises that might inform practice (no necessary link);
4. knowledge as a base of emancipatory action (practice directs research).

They also establish a:

> one-to-one correspondence between a positivist epistemology, with its emphasis on generalizations, and a focus on rules that specify a direct tie between knowledge and practice; between an interpretive

> epistemology with its stress on the case knowledge of meaning in context, and a focus on schemata that can alter a teacher's perception; between a critical epistemology (perhaps more accurately described as a social theory), with its a priory commitment to particular values, and a focus on emancipatory actions to bring about new practices more consistent with these values. (Tom & Valli 1990, p.389)

Tom & Valli (1990) also define the fourth orientation to professional knowledge, outside recognized traditions but practiced by classroom teachers and teacher educators. They call it *craft* orientation in which knowledge "is derived from common sense or folklore, or accumulated experience of practitioners" (Scheffler 1960, quoted in Tom & Valli 1990, p. 377). They suggest the study of *craft* knowledge, that might become recognized as a fourth epistemological tradition.

There is a substantial amount of current research about preservice and inservice teachers' which can be organized under the following headings:

1. *perspectives* (Feiman-Nemser & Buchmann 1986, Tabachnick & Zeichner 1985, Clandinin & Connelly 1986, Goodman 1988, Connelly & Clandinin 1990, Calderhead & Robson 1991);
2. *cognitive constructs* (Mertz & McNeely 1992, McNeely & Mertz 1990);
3. *beliefs* (O'Laughlin 1990, Hollingsworth 1989, Weinstein 1990, Bell 1991, Pajares 1993, Holt-Reynolds 1991);
4. *implicit knowledge* (Freeman 1991, Trumbull 1986).

Hollingsworth (1989) argued that "pre-program beliefs served as filters for processing program content and making sense of classroom contexts" (p. 168). Holt-Reynolds (1992) suggested that "the activities of exploring personal histories with preservice teachers, and locating the beliefs about teaching that are wrapped in those experiences" (p. 346) should be central to teacher preparation.

In spite of the variety of different terms, there is a general consensus about the importance of personal history in the formation of perspectives and beliefs about teaching,

but very few research studies have examined the personal histories of preservice teachers. While most studies in this domain focused on demographic variables (West 1986, Pigge & Marso 1986, Marso & Pigge 1986) others that have examined the topic in more detail (Mertz & McNeely, 1991), assumed that preservice teachers' images/constructs were passively molded by their biographies.

By and large, studies of preservice teachers focus on the period of student teaching at the end of teacher education. Little is known about preservice teachers' thinking prior to student teaching, particularly about the ways preservice teachers make sense of their biography, to create mosaics that represent their current views and expectations related to teaching.

The proposed study examines entering preservice teachers' thoughts and feelings about teaching, and their perspectives on themselves as learners and knowers. The importance of this period of initial formal teacher preparation has been recognized by researchers and teacher educators. For example, Dickie (1991) argues that the framing of questions about education in the beginning of formal teacher preparation is crucial for preservice teachers' future orientation. As Goodman's (1988) findings suggest,

> learning to become a teacher is a complex process of socialization that involves an individual's thoughts, feelings, perceptions, values, and actions. Teacher education programs cannot be adequately developed if the emphasis is limited to students' mastery of specific instructional techniques. To the contrary, it would appear that getting to know students' "intuitive screens" is extremely important, if educators are interested in having a significant impact upon their students. (Goodman 1988, p.134)

Purpose of the Study

The purpose of this study is to examine how entering preservice teachers describe themselves, their ways of knowing, as well as their conceptions about teaching. In other

words, the goals of the study are: (1) to describe current perspectives about teaching and about self in a sample of entering preservice teachers, and (2) to explore the relationships between the conception of self as knower and the ideas about teaching.

A number of research questions have been derived from: (1) theoretical frameworks, (2) the review of research studies about teachers' thinking and teacher development, and (3) personal experience of teaching preservice teachers. The following are the research questions that guide the study. They are divided into questions about the self/identity, questions about teaching, and questions that link these two domains.

Self/Identity

1. How do preservice teachers describe their current identities?
2. What is their awareness of the influence of social group memberships and school experiences to their sense of self?
3. What are entering preservice teachers' epistemological positions about themselves as knowers?
4. How are participants' epistemological positions towards teaching different from their epistemological positions in their other areas of knowledge/ expertise?
5. What are participants' conceptions of intelligence, and to what extent do they consider themselves intelligent according to their own criteria?

Teaching

6. What is the meaning of teaching for entering preservice teachers?
7. Which metaphors do they use to describe teaching and teachers?
8. What are entering teachers' conceptions of "good" and "bad" teachers?
9. What are the patterns in choosing a career in teaching?

10. What are entering preservice teachers' dilemmas and concerns that guide their reflections about teaching?

The Link between Self and Teaching

11. How do participants construct their ideals of themselves as teachers?

12. How are entering preservice teachers' current notions of teaching related to their epistemological positions, their biographies, and their active contribution in developing their professional identities?

13. To what extent do entering preservice teachers perceive themselves as the agents of change in future schools?

Significance of the Study

Although many researchers pointed to the need to examine educational experiences prior to entering formal teacher education programs in order to understand the current views about teaching (Feiman-Nemser 1983, Goodman 1988, Hollingsworth, 1989, O'Laughlin 1991, Holt-Reynolds 1992, Korthagen 1993, Rodriguez 1993), very little research has been done in this area so far. This study will contribute to the existing knowledge about preservice teachers' beliefs, reflections, and images about teaching. It will build on the empirical data about the period prior to student teaching.

The original contribution of this study to the knowledge in the area of teacher preparation consists of an in-depth exploration of the self-concepts and the educational experiences of entering preservice teachers, and in examination of their processes of constructing images about teaching.

In their review of epistemological traditions of teacher education and research-practice link, Tom and Valli (1990) pointed specifically to these questions for future research:

> Is it possible to conceive of the craft tradition in analytic and self-critical terms, as well as in terms of imitation and traditionalism? . In what ways can tacit knowledge from the craft tradition be codified? Or is the codification of craft knowledge, knowledge sensitive to various contexts and to contrasting conceptions of good teaching, a contradiction in terms?
> Can craft knowledge ever be viewed as a systematic way of knowing, with its characteristic methods of inquiry, rules of evidence, and forms of knowledge, so that we can talk about an epistemology of craft knowledge? (Tom & Valli 1990, p. 390)

The entering preservice teachers' knowledge of teaching is assumed to be craft knowledge that originates from personal experience and common sense. By investigating the images and beliefs of entering preservice teachers, this study will help clarify these questions and give some preliminary answers about the nature of craft knowledge in a particular teacher education context.

In contrast to other studies that have assessed preservice teachers' concepts and expectations using surveys and questionnaires (Mertz & McNeely 1992, Cole 1989, Pigge & Marso 1986, Solliday & Jacko 1986), or journals (McNeely & Mertz 1990, Richards et al. 1989), this study uses in-depth interviews together with questionnaires and program documents, to tap into the implicit as well as explicit beliefs, and images of preservice teachers.

While this study may be of most interest to teacher educators who teach courses for entering preservice teachers and administrators designing teacher education programs and curricula, it is hoped that it will be of interest to teacher educators in general, and that due to its exploratory and descriptive nature, it will offer researchers tentative hypotheses for further research. The results of this study will be applicable in revisions of the teacher education programs and their curricula at the institution where the study was conducted.

These revisions are currently under way due to the new state laws and requirements for certifications of teachers. This research is also significant for my own professional development as a teacher educator and a researcher.

Assumptions

This study is founded on the number of assumptions about preservice teachers' "meaning making".

1. It is assumed that preservice teachers ideas about teaching are significantly influenced by their school experience. Lortie (1975) coined the term "apprenticeship in observation" that refers to preservice teachers' learning about teaching as they were students in schools prior to their formal teacher education.

2. It is also assumed that teachers outside the formal school setting (like parents, relatives, friends, mentors, etc.) contribute to an individual's understanding of teaching. There has been little recognition, so far, of this phenomenon in the research about teaching.

3. Another assumption is the recognition of affects/emotions in forming the ideas and beliefs about teaching. Contrary to cognitive frameworks that focus exclusively on how a person thinks about a problem, this study explores preservice teachers' emotions related to school and teaching, assuming that these emotions are an important foundation for ideas and beliefs about teaching.

4. A dialectical approach to teacher socialization is another assumption of this study. Although the study focuses on biographical factors, preservice teachers are not seen as

molded by their pasts, but as active contributors in developing their occupational identities. As Goodman (1988) pointed in his study of student teachers' professional perspectives:

> The dialectical relationship between external demands and student directed action could be observed in a number of instances as students developed their perspectives. For example, students often modeled the teaching techniques of, and expressed similar ideas to those of their cooperating teachers. However, this modeling was rarely complete. Instead of being "carbon copies" of particular individuals, the students picked specific characteristics from a variety of individuals (cooperating teachers, seminar leaders, "methods" instructors, parents, etc.) as they put together their own professional identities. (Goodman 1988, p.133)

When applied to entering preservice teachers, this idea leads to the assumption of the study, that preservice teachers create their images of themselves as teachers based on "good" and "bad" teachers from their past. They actively choose what they want to emulate or avoid from each of their models based on their values, experiences and implicit beliefs.

5. Preservice teachers hold multiple beliefs and images about teaching that are sometimes in conflict with each other. This assumption is in line with O'Laughlin's (1991) notion that teachers do not subscribe to cohesive and comprehensive ideologies about teaching, but that:

> as one becomes increasingly reflexive about teaching one becomes increasingly aware of the essentially contradictory and dilemmatic nature of the demands of teaching. There is considerable support in the literature for the notion that teaching is much more the resolution of dilemmas than the unquestioning enactment of a single ideology, whether progressive or traditional (e.g., Berlak & Berlak 1981, Billig et al. 1988, Delpit 1988, Ginsburg 1988, Lyons 1990). (O'Laughlin 1991 p.7)

6. Another assumption is that preservice teachers are not aware of some of their beliefs and they would not be able to articulate them clearly, but implicit beliefs can be tapped into through their stories, anecdotes, or metaphors about teaching.

7. Knowledge of entering preservice teachers is assumed to be craft knowledge. This means that it is based on common sense knowledge and personal experience.

8. It is assumed that the beliefs about teaching guide preservice teachers' thinking about teaching and are related to their actions in classrooms (Mertz & McNeely 1990, Hollingsworth 1989, Clark 1988, Clark & Lampert 1986).

Definitions and Discussion of Terms

The following definitions of terms are used in the dissertation. These definitions both limit and focus this study.

Preservice teacher is an undergraduate or post B.A. student in a teacher education program.

Entering preservice teacher is a student enrolled in a teacher education program or in a process of enrollment, before the first semester in the program has been completed.

Teaching is a two way social interaction between a teacher and students. It is not limited to formal settings like schools. Teaching is always a process of becoming, never a finished product, and in this process the "teacher is continually shaping and being shaped by the dynamics of social practice, social structure, and history" (Britzman 1991, p. 32).

Teacher's beliefs refer to conceptions about teaching that are accepted as true. O'Laughlin (1990) introduces the notion of teacher beliefs as complex ideological systems. Kagan (1990) uses the definition of teacher belief as "highly personal ways in which a teacher understands classrooms, students, the nature of learning, teacher's role in a classroom, and the goals of education" (p. 423). *Assumption* is a similar but somewhat narrower term than belief since it includes only unexamined truths.

Image refers to the ideal, and it describes the core of teaching, not the daily nuances of practical teaching. Elbaz' (1983) definition of image as "mental picture or conception on which behavior would depend" is used in this study. The term *cognitive construct* (McNeely & Mertz 1990, 1992, Mertz & McNeely 1991) has been used to describe similar concepts. These authors define a cognitive construct as "a way of thinking about teaching, a mental picture of how it is and how it works" (Mertz & McNeely, 1991). They deduced a single construct about teaching that each preservice teacher held, based on the answers to the questions about the role of the teacher, the purpose of teaching, and about what good teachers do. Their notion of cognitive construct can be described as a dominant image about teaching. The term *image*, also used by Berliner (1986), is used in this dissertation, since it better captures the hypothetical nature of this concept.

Biography refers to life history or previous life experience.

Meaning making is a process of interpreting experience. "The 'meaning' of experience consists of some sort of orderliness found in it, and the nature of this orderliness in a given person's experience can often be deduced by others from the forms of his behaviors, including, especially, what he himself has to say on the matter" (Perry 1970, p. 41-42).

CHAPTER II

LITERATURE REVIEW

Demographic Trends in Teacher Education in the U.S.

This section is a summary of statistical data about the demographic trends in teacher education in the U.S. according to government documents (National Center for Education Statistics, 1993). The number of bachelor's degrees in education dropped from 176,000 in 1970-71 to 108,000 in 1980-81, and increased slowly from the mid-eighties toward 110,000 bachelor degrees in 1990-91. At the same time the number of master's degrees increased from 89,000 in 1970-71 to 99,000 in 1980-81, and dropped back to 89,000 in 1990-91.

Out of 110,000 students of education awarded bachelor's degree in 1990-1991, 80% were women and 20% were men. The racial/ethnic group distribution was 91% White, non-Hispanic, 4% Black, non-Hispanic, 3% Hispanic, 1% Asian/Pacific Islander, 1% American Indian/Alaskan Native.

The gender distribution of master's degree recipients was 23% men and 77% women. Forty two percents of doctoral degree recipients in education in the same year were men, and 58% women. In general, the proportion of men increases with higher level degrees as it does in the other fields.

Table 2.1 The Number of Institutions Offering Different Levels of Degrees in Education

	Total	Public	Private
Associate Degree	352	270	82
Bachelor's Degree	1,160	450	710
Master's Degree	764	407	357
Doctoral Degree	197	135	62

Table 2.2 The Number of Degrees in Education Awarded 1990-91 in These Institutions

	Total	Public	Private
Associate Degree	7,795	6,826	969
Bachelor's Degree	110,010	86,962	24,048
Master's Degree	88,904	61,343	27,561
Doctoral Degree	6,643	5,126	1,517

Age distribution of education students is another interesting phenomenon. Out of 464,000 undergraduates in 4-year institutions, 72% were under the age of 25, 15% were between 25 and 35, and 13% were over the age of 35. Out of 303,000 graduate students in education, 12% were under 25, 38% were between 25 and 35, and 50% were over the age of 35. Even looking only at undergraduates, there is a significant proportion of students in their late twenties and late thirties. Several studies focus on this non-traditional student population (Jacobs 1989, Knight & Duke 1990).

The demographics of three Research about Teacher Education (RATE) projects (Zimpher, 1989), that surveyed a sample of undergraduate teacher education students at 90 institutions, were similar, but the findings of these studies focus also on cultural factors and shed more light into the picture of a "typical" preservice teacher. Each of the three projects had a sample size around 1,000 preservice teachers. The racial/ethnic distribution of the students was 93% White, 3.7% Black, 2.2% Hispanic, .97 % Asian or Pacific Islander, and .44% American Indian or Alaskan Native. The lag in enrollment of minorities in teacher education programs was explained as a result of fierce competition for minorities in academic recruitment, and lack of preference toward education among minority students (Zimpher 1989, p.27). The average age of undergraduate students was 24-25 years and a third of preservice teachers for elementary schools were married. Few preservice teachers came from urban areas, and 75% of participants were enrolled on campuses within 100 miles of their homes. Most participants expressed a preference to teach in communities of the same size as their home community. The only exception were students from urban areas, the majority of whom did not want to teach in cities. Most students would like to teach close to their home town (79%), or teach in the same state (76%).

Asked to identify the factors that have most influenced their decision to select teaching as a career, most students chose the categories — "helping students grow and

learn" (90-95%), and "education seems to be a challenging field" (63-65%). The category —"inspired by favorite teacher" — rated in the middle of proposed factors, with 45-53% of participants checking this as a significant factor, as opposed to studies in the fifties and sixties which found the influence of a former teacher to be the major element in career choice (Ciscell 1987; Fielstra 1955, Richards 1960, cited in Zimpher 1989). Asked about long-term career goals, most students chose mentoring beginning teachers, or being a cooperating teacher as the most appealing, while their least appealing role was the one of superintendent/principal. Zimpher characterizes a typical student in her sample as white, female, from rural (small town) or suburban home community, who has selected an institution not for its reputation but for its proximity to home, and affordability. She describes her sample as basically monolingual (only 6% were fluent in a language other then English). Students had little or no experience traveling beyond the 100 miles radius from home, and the majority wanted to teach in a traditional classroom settings, i.e., they preferred to teach middle class children of average ability (not gifted or special needs).

Zimpher discussed the contrast between this limited cultural world-view of preservice teachers and demographics of tomorrow's schools, where one out of every six pupils is poor and one out of every four is a member of a minority group (Haberman 1984, as cited in Zimpher). Projections from this study show that the percentage of African-American teachers, which was 8% in 1989, is still decreasing.

> These data, linked with student reports that they are not ready to teach in culturally diverse settings or with "at risk" pupils, reflect the need for both more culturally diverse recruitment strategies and more effective programmatic understandings of cultural differences. Overwhelmingly this posture of homogeneity, or limited career horizons, and modest diversity of cultural experience runs through the RATE profiles. ... Prospective teachers deserve our renewed effort to expand their cultural horizons. (Zimpher 1989, p 30)

The findings of this study related to homogeneity and limited cultural views of entering preservice teachers provoke thoughts about how to expand the perspectives of this student population during preservice teacher education.

Goodlad (1990) conducted a massive five-year study of teacher education programs and the data from that study support some of the above findings about student population. In his sample of almost 3,000 preservice teachers from a variety of teacher training institutions, 80% were women, and 92% were White. Eighty five percent of his sample lived in a family with middle or higher range of income during their K-12 years, but at the time of the study over 50% claimed incomes that placed them below the middle range. About 50% viewed teaching as a career that might support an individual, but only 10% saw teaching as a profession that provides enough income for the sole or even main support for the family. He also concluded that:

> the teaching occupation has not lost the local, family character commonly attached to its past. One candidate in five and one in ten reported a mother or a father, respectively, who had or still taught. Almost all candidates came from nearby communities... The main reason for choosing a major public, regional public, or major private university was its nearby location. ... The preference for a local institution was due in large part to the belief that it gave students the best shot at a local teaching position. In our interviews, we learned that large numbers of students wanted to get a job locally; they were not interested in leaving the state or even the region of the state for job opportunities elsewhere. (Goodlad 1990, p. 202)

These studies provide an overview of preservice teachers' backgrounds and future aspirations. Two important issues for teacher education emerge from this review. The first one is the recruitment and retention of a more diverse population of preservice teachers, particularly from the groups that are already underrepresented, such as racial/ethnic minorities, men, and people from lower socio-economic class backgrounds. This issue is inextricably linked to economics i.e., availability of financial support during college, and teacher salaries. It is a larger social issue that can not be resolved within teacher education

programs, but people within the programs who are informed might help raise the awareness about this issue. Another issue that is within reach of the programs is to prepare preservice teachers to serve very diverse student populations. Since demographic data tell us that children is schools are less likely than ever to share racial/ethnic, and social class backgrounds, or learning abilities and styles with their White, middle class, average ability, female teachers, the implicit assumption from the past — that teachers understand their students, since they had been students in schools for a long time — is less true today than ever before.

Theoretical Perspectives

The overview of theories of human development applied to young adulthood will be presented in the first part of this section. The second part deals with theoretical frameworks for teacher development.

Theories of Adult Development

In her review of literature on ages and stages of adult development Oja (1989) identifies two groups of theories: life age/cycle theories, and cognitive-developmental stage theories. The first group of theories focuses on "predictable life events as pacers of growth" (Oja 1989, p 122). The work of several theorist like Gould (1978), Levinson (1978) that describe transitions as adaptations to life events is classified into life age theories. Life cycle theories, in the other hand, focus on certain issues that need to be addressed at different points in life, but that are central concerns of a particular life period. An example is Erikson's (1959) theory of psychosocial development.

Cognitive developmental theories are focused on how a person makes sense of experience. Each stage of development is characterized by different perspectives towards self, authority, and knowledge. The assumption of cognitive developmental theories is that "human development results from changes in the organization of a person's thinking, changes that represent new ways of looking at some aspect of the world" (Feiman & Floden, 1981). Higher stages are characterized by more conceptual complexity and more advanced mode of reasoning. Most of these theories assume a hierarchical model of development. In other words, most cognitive developmental theories are based on the assumption that more advanced stages are more desirable, i.e., they are based on certain set of values.

Several theories of cognitive development — Loevinger's (1976) theory of ego development, Perry's (1970, 1981) theory of intellectual development in college, and Belenky et al. (1986) model of epistemological perspectives of women — will be reviewed in this section. In addition, the theoretical framework of this dissertation is based on Miller's (1976), Gilligan's (1982, 1990) and Lyon's (1983) work on women's identity and moral development .

The following is the summary of age/cycle theories in the age range from 20-50, which is the age of interest for studying preservice teachers. These theories point to the importance of life period of teacher education students for their development as teachers. Gould and Levinson describe the early twenties as a transition from adolescence to adulthood characterized by separation from parents. Late twenties are characterized by initial commitments to occupation and personal relationships. The thirties are a period of reexamination and settling down. As a person approaches forties another major reexamination of values and priorities is followed by another relatively stable period toward the fifties, in which personal limits are acknowledged and a renewed commitment to family

and friends takes place (Burden, 1990). Erikson's theory proposes 8 stages of psychosocial growth related to major crises in life. The stages are not hierarchical and are reexamined at different points in life, but for most individuals the stages are salient to a specific life period. Three of these stages occur typically between the ages of 20 - 50: identity vs. role confusion, intimacy vs. isolation, and generativity vs. stagnation.

Since Levinson's and Gould's sample consisted primarily of white middle class men, it is questionable whether their life periods adequately describe the experience of those from different ethnic or social backgrounds, or women — who constitute a vast majority of students among preservice teachers. The need for more studies of life-ages of women is evident. The significance of life age/cycle theories for teacher education is in their emphasis on the relation between the negotiation of certain life tasks and the functioning of the adult. However, as Oja (1989) notes, "age alone is not enough information upon which to determine a teacher's career cycle, life period, or developmental stage. Although there is a closer consistency between years of age and life period, there is still not a one-to-one correspondence. Rather, the key issues one is currently working on in one's life determine the life period" (Oja 1989, p. 148).

The other group of theories focused on moral judgment, conceptual complexity, and ego development are cognitive theories of adult development. The common feature of these theories is a notion that each subsequent stage involves a broader perspective that integrates all previous stages; that stages unfold in unique order; and that no stage can be skipped.

Jane Loevinger (1976) conceptualized sequential stages and transitions of ego development in adulthood. Each stage of ego development is characterized by a specific "inner logic" of an individual. Adults at a certain stage are inattentive to factors inconsistent with their current stage. The following summary of ego development in adulthood is based

on Loevinger (1976) and Oja (1989). Most individuals outgrow the *self-protective* stage in middle childhood. Those who remain fixated in this stage use rules solely for their own advantage. They are manipulative in their interpersonal relationships and preoccupied with control. The adults in the *conformist* stage are preoccupied with social acceptance, reputation and appearance and struggle with feelings of disapproval and shame. The *self-aware* transition is characterized by growing self-confidence and by replacing group standards with inner norms. The *conscientious* stage is the next step in which rules are internalized, the individual is capable of self-criticism, and guilt is the consequence of breaking the inner rules. During the *individualistic* transition, adults value interpersonal relationships and conceptualize them as more complex than in previous stages. They are able to tolerate paradoxes and contradictions around them. The next stage in Loevinger's theory is the *autonomous* stage. It is characterized by the ability to tolerate inner conflict, by an acknowledgment of others' need for autonomy and at the same time the realization of the limitations of one's autonomy. Adults in this stage value mutual interdependence and their main concern is self-fulfillment. The last stage is the *integrated* stage in which an individual reconciles inner conflicts, cherishes individuality and focuses on identity.

The strength of Loevinger's framework is in integrating cognitive and affective domain, as well as conscious and unconscious functioning. Studies which applied this model to teaching found that predominant teacher stage was the self-aware transition or the conscientious stage (Oja & Sprinthall, 1978).

Perry's theory of intellectual development during college years is based on the interviews with Harvard undergraduates in the 1950's and early 1960's. Perry (1970, 1981) "describes intellectual development in terms of growth in understanding, or in ways of knowing and construing the world" (O'Laughlin 1990, p.19). His stages of development are conceived as coherent frameworks for interpreting experience. In Perry's scheme, the

development starts from *dualism* — in which knowledge is absolute, the world is seen in black-and-white terms from a single unexamined perspective, and authorities are perceived as a source of knowledge. Faced with conflicting opinions in different subject areas, undergraduates move to the next stage or *multiplicity*. They acknowledge the gray areas of knowledge, and they perceive any opinion as equally valid. *Relativism* is the third stage, in which college students are able to consider evidence on different sides and to articulate the principles which authorities use to approach the gray areas of knowledge. The last stage is *commitment in relativism*, in which personal values, ideologies and priorities are chosen after carefully considering the alternatives. Only few college students reach the highest stages, and many adults never grow out of the dualism or multiplicity stages. According to Kurfiss (1982) most undergraduate students can be categorized as late dualists or as entering the relativism stage.

While Perry used only data from interviews with men in an elite social setting to develop his scheme, Belenky, Clinchy, Goldberger, & Tarule (1986) interviewed 135 women from different ages, racial/ethnic and social class backgrounds. They used several social settings to recruit the participants: from elite colleges, to family agencies that deal with teenage mothers, child or family abuse. They interviewed women of various ages from 18 to 65. This is Belenky et al. (1986) critique of Perry:

> In Perry's scheme, there is clear sequential ordering of positions and, he does not claim they represent an invariant developmental sequence, since individuals can retreat or temporize, but he does believe that each position is an advance over the last and the ultimate end point in the move out of dualistic thought is what he calls "commitment in relativism". Harvard is clearly a pluralistic institution that promotes the development of the relativistic thought. What we believe Perry heard in his interviews with men and captured so well in his developmental scheme is the way in which a relatively homogenous group of people are socialized into and make sense out of a system of values, standards, and objectives. The linear sequence in development stands out clearly when the context in which the development occurs is held constant.
> When the context is allowed to vary, as it did in our study, because we included women of widely different ages, life circumstances, and backgrounds, universal developmental pathways are far less obvious. We describe in this book epistemological perspectives from which women know

> and view the world. We leave it to future work to determine whether these perspectives have any stagelike qualities. (Belenky et al. 1986, p. 15)

Belenky et al. (1986) identified five epistemological positions of women. The following description of their model is paraphrased from Belenky et al. (1986) and McAninch (1993). The first position is *silence,* in which women believe they are "deaf and dumb" or incapable of knowing anything important. They feel powerless and dependent, they fail to develop the capacity for representational thought, and it is very hard for them to reflect on their own situation or experience. The second position — *received knowledge* — is characterized by a belief that external authorities are the sources of knowledge. Received knowers view themselves as capable for learning, but learning consists of mastering what experts have said. *Subjective knowledge* is the next perspective. This orientation is as authoritarian as the previous one, but the source of knowledge or truth is individual's personal experience, intuition and "gut" feeling. It is accompanied by a rejection of books and scientific research as a source of knowledge, and by centering on what "works" or "feels right". The authors found that almost a half of women in their sample held this perspective, cutting across age, class, ethnic, and education lines. The fourth perspective, *procedural knowledge*, is characterized by search for objectivity, and looking at an issue from different viewpoints. Knowing is focused away from the self to an object or another person. While *connected procedural knowers* learn to understand other points of view through empathy, and they try to suspend judgment; *separate procedural knowers* learn to explore different points of view by analyzing their weaknesses, such as logical flaws, or lack of evidence. They are skeptics. Connected knowers also need instruction in how to adopt different lenses but this approach is seldom taught systematically in educational institutions. *Constructed knowledge* is the last perspective that integrates emotion and intuition with rational thinking. Knowledge is viewed as constructed, tentative, and contextual. The women who adopt this perspective develop a passion for learning, and they are reflective about their own thinking. They have a high tolerance for ambiguity and

complexity. More than any other group they are preoccupied with the moral and spiritual dimension of life and with improving the quality of lives of others.

Although Belenky's study is based on a broader sample than Perry's study, neither of these samples are random. The former study is applicable particularly to preservice teachers since four out of five preservice teachers are women. Its strength is that the "ways of knowing" are viewed as a result of cultural and social contexts of women's lives (McAninch, 1993). A limitation of the study is that it did not address the epistemological perspectives of racial/ethnic minorities among women. While Perry identified the importance of detachment for men's cognitive growth, Belenky's study points to the crucial role of connection for women's cognitive growth. Women need to connect both to others and to their "internal voices", or thought processes.

There is the one-to-one correspondence between Perry's stages of men's development and Belenky et al.'s women's perspectives: dualism corresponds to received knowledge; multiplicity to subjective knowledge; relativism to separated procedural knowledge; and commitment in relativism to constructed knowledge. The importance of Belenky's study for teacher education is that it provides "insight into how specific intellectual perspective we might seek in teacher candidates may be cultivated" (McAninch 1993, p 35). More discussion of application of Belenky's study to teaching will follow in the next section.

Most cognitive developmental theories focus narrowly on the notion of cognition as rational thinking, excluding feelings and intuition. The Belenky et al. model departs from that pattern but still places higher value judgment on knowledge that utilizes both objective and subjective sources. What is needed is a more inclusive model of cognitive development with the analysis of how cultural and social contexts, as well as values, define the notion of

what is desirable, or what are the "highest" stages of development and for whom. Cognitive theories in general lack the sensitivity to the contexts of development .

There is also a controversy in applying these theories to education. Applications of cognitive theories often equate the goal of education with promoting higher stages of development. For example, Kohlberg & Mayer (1972) as well as Sprinthall & Thies-Sprinthall (1983) consider that education should be designed to promote cognitive development. Feiman-Nemser & Floden (1981) point to the logical error in the automatic assumption that promoting higher stages of development is a goal of education, and in equating higher cognitive stages with good teaching:

> There is a difference between the ends of development and the goals of a developmental approach to teacher education. Theories don't have goals, people do. The reason for trying to promote a particular version of teacher development depends on whether one values the goals associated with that conception. ... Maturity as defined by Kohlberg or Loevinger or Hunt may be necessary but not sufficient condition for being effective in the classroom. Being a mature adult does not automatically make one a good teacher (Feiman-Nemser & Floden 1981, p 27).

Jean Baker Miller's work (1984, 1976) was instrumental in clarifying some of the facets and universalities of woman's sense of self that cannot be explained from the male developmental models. She tried to "look toward a more accurate understanding of women's psychology as it arises out of women's life experience rather than as it has been perceived by those who do not have that experience" (Miller 1976, p 48). She pointed to the characteristics of women that have not been highly valued by most male theorist like vulnerability, dependence on others, emotional connectedness, ability to cooperate, and responsiveness to the needs of others. These qualities were often seen as weaknesses in the developmental models that were built on achieving independence, self sufficiency and autonomy. Miller's work was crucial in recognizing that women's self-image is based on different issues than men's. According to Miller, women as a group are concerned with

giving and with "being there" for others. While men's identity — as Erikson argues — precedes intimacy, women's primary way to define themselves and the organizing principle in their relationships is their ability to achieve connectedness, serve others' needs, and maintain affiliations. Since woman's sense of self is established through her relationships, the disruption of a relationship is threatening to a woman, and conflict — that is a necessary step in further personal development — is often a taboo area for a woman. Therefore woman's desire for affiliation is a social strength but as well a source of psychological problems.

Gilligan (1982, 1990) elaborated further on the psychology of women grounded in relationships, care, and interdependence. Drawing from men's and women's ideals, she extrapolated two images and meanings of relationships. Men's image of relationships is a hierarchy and the ideal is to be at the top while the fear is that others will get too close. For women, on the other hand, the image of relationships is a web and the ideal is to be connected in the center of the web while the fear is to be left out at its edges (1982, p. 62). Gilligan traced the development of moral reasoning for women as a sequence of three stages and two transitions in between them. Although her model resembles Kohlberg's levels of preconventional, conventional, and postconventional thinking in terms of the basis of reasoning at each stage — oriented first only towards the self, then towards being good in the eyes of others, and at last towards an autonomous reflective stand — she departed from a linear developmental model acknowledging that the developmental process is not a linear progression but a "polyphony of voices" (Gilligan et al.1990, p 318) that counterpoint each other. Instead of the standard notion of development understood as a hierarchical step-like ascent towards more complex levels, the musical metaphor of fugue (Gilligan et al. 1990, p. 320) suggested the importance of listening to the recurring themes, and recognized the losses not only gains, that are a part of this developmental process. For example during adolescent years, as development "progresses" girls lose previously clear voices and

struggle to hold on to their true selves (Pipher, 1994). While Kohlberg's underlying criterion for moral judgment was a person's concern for justice and fairness, Gilligan affirmed women's morality of care and responsiveness to others. In the first stage of her model, women are concerned about their own survival. That is followed by the responsibility for others and neglect for the self in the second stage, with the emphasis on conformity and self-sacrifice that are equated with goodness. The third stage — that she described as centered around truth, not goodness — consists of mutuality and acknowledgment of interconnectedness between self and others and it includes the care of the self as morally appropriate. The two transitions between the stages are characterized by shifts from selfishness to selfless, and from goodness to truth. This is how Gilligan described that developmental sequence:

> As the events of women's lives and of history intersect with their feelings and thought, a concern with individual survival comes to be branded as "selfish" and to be counterpoised to the "responsibility" of a life lived in relationships. And in turn, responsibility becomes, in its conventional interpretation, confused with the responsiveness to others that impedes the recognition of self. The truths of relationship, however, return in the rediscovery of connection, in the realization that self and other are interdependent and that life, however valuable in itself, can only be sustained by care in relationships.(1982, p. 127)

The role of relationships, according to Gilligan, is particularly important for adolescent girls, at the developmental milestone when they are "in danger of losing the voice and thus losing connection with others" (1990, p 25). They come of age in a culture that prescribes that woman as a mother should be selfless in order to care for others, while it perpetuates the myth of equality and the expectations to be assertive, achievement oriented, and independent in the professional sphere. Girls at the transition to adulthood often lose their clarity of self-image and voice, caught in a conflicting messages they get from the society and struggling to define themselves, their morality and their visions.

Lyons (1983) defined two perspectives on self in relation to others: self as separate and objective in relations to others, and self as interdependent and connected in relations to

others. The former category related to individuals who experienced the relationships as reciprocal and focused on concern for others with objectivity and fairness, while the latter centered on response to others in their own terms in order to alleviate their problems or suffering. In the sample of 36 males and females of different ages she found that women more frequently used a connected mode of self-definition, while men predominantly described themselves in separate/objective terms. She also found that the mode of self-definition, regardless of gender, was strongly positively correlated to the orientation towards either justice or care in moral conflicts. In other words, individuals who defined themselves predominantly as separate/objective in relations to others were more likely to use the justice orientation in moral conflicts, while those who characterized themselves mostly in connected terms used the caring orientation in moral conflicts more frequently.

Frameworks for Studying Teacher Development

One of the key terms in research on teaching in the 1990s is *teachers' professional development.* It is conceived as teachers' continuous professional learning (Holly & Walley 1989, Blackman 1989). Kagan (1992) describes it as professional growth among preservice and beginning teachers. This part of literature review will focus on five frameworks for studying teachers' professional development.

Teachers' Concern Framework

Fuller and her associates (Fuller 1969, Fuller & Bown 1975) interviewed preservice teachers in order to discover the patterns of teachers' concerns in different phases of learning to teach. They identified several stages of concerns about becoming a teacher. The preteaching period was characterized by the absence of concerns about the specifics of teaching while preservice teachers were concerned with their survival as students. The early

teaching stage was characterized by concerns about self, and about survival as a teacher. Preservice teachers were preoccupied with their own adequacy as teachers. In the next stage they were concerned about their teaching performance, and in the last stage, the concern shifted to students' learning. Fuller believed that earlier concerns need to be resolved in order to develop more advanced concerns. The implication of this assumption for teacher education is to design early teacher education courses around the concerns about self, and classroom management, then to shift to instruction and to provide the discussions of the moral domains of teaching at the end of teacher preparation. In her review of literature on professional growth among preservice teachers, Kagan (1992) builds on that argument of developmental readiness and concludes that:

> A primary goal of preservice programs should be providing procedural knowledge to novices and promoting the acquisition of standardized routines that integrate management and instruction. ... Novices may engage in technical rationality rather than other levels of reflection, because that is where their developmental needs lie: in understanding what works and why it works. ... Instead of expecting novices to reflect on the moral and ethical implications of classroom practices, teacher educators might be wiser to guide novices through their biographical histories. (Kagan 1992, p.163)

She goes even further and questions the relevance of formal theory to teachers at any point in their professional development. Many teacher educators, particularly those who view teaching as an inherently moral activity (Valli, Tom, Zeichner, Liston, etc..) strongly disagree with this viewpoint. Grossman (1992) attacks Kagan's position on the grounds that:

1. In her review of literature Kagan excluded the studies that focus on pedagogical content knowledge and on ethical dimensions of teaching.

2. She did not provide a critique of the studies but treated them as equally valid.

3. Classroom management cannot be considered value neutral. It is based on implicit theories of instruction, and on assumptions about schooling as a form of social control.

Grossman (1992) points that stage theories imply that earlier stages lead naturally to more advanced stages while there is an empirical evidence supporting the contrary, that when preservice teachers master the routines of teaching, many of them are less likely to question

the prevailing norms of teaching and learning, or attempt to change them. (Feiman-Nemser & Buchmann 1985, 1989)

> Just as classroom teachers are learning to regard their students as thinkers, so must teacher educators learn to honor the capacities of their students as critical thinkers. (Grossman 1992, p 177)

In my opinion, regarding preservice teachers as critical thinkers able to deal with moral as well as technical aspects of teaching from the beginning of teacher preparation as suggested by Grossman, will contribute to future teachers' willingness to critically examine or change the practices of teaching.

Most empirical studies did not confirm Fuller's developmental model of preservice teachers' concerns. For instance, Pigge & Marso (1986a) examined the concerns of 260 beginning preservice teachers using several questionnaires. They found that concerns varied across gender, academic capabilities, and fathers' education levels: males were more concerned about actual teaching tasks than females, higher achieving preservice teachers were more concerned about becoming teachers, and preservice teachers whose fathers had less education were more anxious about teaching. It seems that concerns are more context bound, and not generalizable across the whole population of preservice teachers. In another study Pigge & Marso (1986b) analyzed preservice teachers' concerns at three points in their teacher education (at the beginning of course work, prior, and after student teaching). The results of this study suggest that concerns change during teacher education, but that the changes do not follow a straight developmental progression.

Cohen (1983) compared the concerns of two different age groups of student teachers, that were matched in terms of gender and teaching major. She found that college-age students were more preoccupied with self concerns like classroom management skills, acceptance by students, and evaluation by university authorities, than the group of preservice teachers above the age of 30. She used this finding to point to the need for teacher

education programs to attend to these differing concerns, but she did not speculate about the origins of these differences. One explanation could be that survival has different meaning for the younger students still preoccupied with their identity formation than for the older age group. The younger group might be more vulnerable since they did not come to terms with individual identity. Another possibility is that life experience helps non-traditional college-aged students be less preoccupied with themselves as teachers.

Another study (McNeely & Mertz, 1990) of eleven preservice teachers during student teaching experience, explored the change in thinking about teaching and the relationship of their thinking to their classroom behavior. Journals, papers, and classroom observations were analyzed in search of individual and collective patterns. Participants entered student teaching with strikingly similar views about teaching. They thought about teaching in terms of student learning, and believed that adequate planning results in good teaching. They expected to be liked by the students, and they were enthusiastic and confident about themselves as teachers. "[Student teachers] thought about teaching and the classroom non-contextually, i.e., as phenomena that existed in splendid isolation from the context in which they occur" (p. 13). As they assumed more classroom responsibilities, their experiences did not fit into the existing constructs. Students were not as responsive as they had expected, and student teachers' first impulse was to work harder and plan better. However as their frustration mounted, they started to question not only the notion of what constituted a good lesson but also their initial conceptions of students. They began to perceive students as opponents they needed to conquer, rather than seeing them as friends. They also began to question their initial confidence in their teaching ability. The findings of this study contradict Fuller's model of concerns in learning to teach. These student teachers began with an emphasis on the content of the instruction, and moved to a "lower" developmental level of survival concerns and on concerns related to classroom control.

Dilemma Framework

Another model assumes that teachers' knowledge is dilemmatic and instead of knowledge following a developmental progression, this framework focuses on the issues/domains that are experienced as dilemmas.

Berlak & Berlak (1981) explored the dilemmas teachers experience. The authors considered the purpose of teacher education programs was to help a teacher become aware of political, cultural, and moral choices involved in teaching practice, and they believed that the "dilemma" language could empower teachers by providing a way to conceptualize the current patterns of teaching choices, to consider alternative ways to make those choices, and to examine the consequences of those choices upon children. The model tried to capture the tensions on the individual and institutional levels, that were a result of inconsistent and even contradictory goals of education. The dilemmas were divided into three sets: control, curriculum, and societal dilemmas. Control dilemmas described the tensions over locus and extent of teacher's control over students. The curriculum dilemmas provided a way of inquiring into transmission of ways of knowing and learning through teaching practice. These dilemmas were defined through the opposing conceptions of knowledge and learning: knowledge as personal or public, as content versus process, as given or "problematical"; learning as holistic or molecular, social or individual. The societal dilemmas focused on issues of equity, justice, and social relations among people of different age, gender, ethnic, and racial groups. One illustration is a common culture vs. sub-group consciousness dilemma. It captures the notion of a universal set of norms and values for citizens on one hand, and a focus on recognizing the identity of children as members of sub-groups with distinctive customs, history, and values, on the other. The Berlaks used each dilemma as a separate lens to portray a teacher's behavior and how it changes over time. They acknowledged that their model fragmented and distorted the full picture of

teaching practice, and they also noted that an alternative way of resolving a particular dilemma must be accompanied with the craft knowledge to implement the change.

Lampert (1985) described her own dilemmas from her experience of teaching a fifth grade math class. She did not conceive of dilemmas as problems of choosing between dichotomous alternatives, but as internal contradictory pulls that stem out of contradictory social goals for teaching and conflicting identities of teachers. She proposed that teachers need to cope with dilemmas rather than solve them. She used the metaphor of the teacher as "dilemma manager", that recognizes conflict as a continuing condition of teaching. She also places the issue in a cultural context by noting that the discussion of teacher's unsolvable problems is absent from research and professional discourse, maybe due to the classic American belief that there is a solution for every problem.

Lyons (1990) explored the nature and meaning of dilemmas teachers encounter in their classrooms within the framework of three epistemological dimensions of teacher's work: teacher's view towards the self as knower and learner; teacher's view towards the student as a knower and learner; and teacher's view towards knowledge of a subject matter. She interviewed sixty teachers about the conflicts they faced in their professional lives. She found that 70% of teachers' conflicts could be described as moral or ethical, and that the majority of teachers connected the dilemmas to their sense of self. Her findings support Lampert's (1985) notion that many dilemmas of teaching are not solvable and must be managed rather than resolved.

The dilemma framework focuses on the problematic and ethical aspects of teaching. Future research studies might examine to what extent are entering preservice teachers aware of dilemmatic nature of teaching.

Teachers' Schema Framework

Another empirical developmental model for teachers is based on novice/expert studies and schema theory (Kagan 1992). It stems out of information processing theories of cognitive development, specifically, cognitive-mapping. The schemata, or knowledge structures of expert teachers, are studied in order to codify, formalize, and systematize their knowledge and to lay out a series of processes in which every teacher should be able to engage. (Berliner 1986, as cited in Elbaz 1993). In her reflection on teachers' schema framework Elbaz (1993) argued that the conception of expertise, as well as its use to generate a normative conception of pedagogy for novices, was highly problematic. She pointed to the value placed on accomplishment that underlined this model but was not discussed. Another assumption of this framework is that knowledge about how experts structure their thinking is relevant for novices. Lampert and Clark (1990) pointed to the need to study how expert teachers used their knowledge structures, how they acquired those schemata, and what were the contexts where they worked (p. 22, 23) in order to apply the findings to teacher education. Entering preservice teachers' schemata of teaching are related to this study.

Cognitive Developmental Framework

This approach to teacher professional development is based on the conception of the teacher as an adult learner (Veenman, 1984).

Hunt (1970) proposed a model of: (1) matching the learner's cognitive orientation to the structure of instruction, (2) matching the learner's motivation to feedback and rewards, (3) matching the learner's values to value context of presentation, and (4) matching the learning style to modality of instruction. Instead of focusing on how teachers affected

students he assumed a two-way interaction between the teacher and the students and examined the "student pull" or how teachers adapt ("read and flex") to students (Hunt, 1976). In a study of teachers' adaptation he found that teachers who function at higher conceptual levels were more flexible, responsive, creative and empathic, and as a result they were more effective teachers.

Sprinthall and Thies-Sprinthall (1983) discussed the lack of theoretical frameworks for teacher education. They suggested adopting the cognitive developmental framework and regarded the achievement of higher cognitive developmental stages as the goal of teacher education. They supported this notion by reviewing the research which demonstrated that persons in higher stages of development in Kohlberg, Loevinger, Hunt, and Perry models functioned more successfully in their careers. From the review of empirical studies they concluded that the curriculum fitting learners' cognitive level could stimulate cognitive development, and that teachers at higher cognitive stages were more effective teachers. They argued for a tracking system in teacher education that would provide different learning environments for groups of preservice teachers based on their initial cognitive developmental level. The problem with this tracking model — that groups preservice teachers according to their entry cognitive developmental stage, and provides them with differential instruction that matches their developmental level — is that by stratifying the student population, teacher education misses the opportunity to provide learning from other students who are in different stages. The ability to understand and work with others who are in different developmental stages is particularly relevant for future teachers. Therefore, I agree with McAninch (1993) that, "it is much more desirable to develop curricula that fosters growth in all students in a heterogeneous setting, regardless of the developmental differences among students" (p. 40).

Belenky and her colleagues (1986) discussed the applications of their findings to education for women. They found that most women in their sample lacked the confidence in themselves as thinkers and they needed confirmation of themselves as knowers by the teachers. Also the vast majority of women named out-of school experience as their most powerful learning experience. Most women were more attuned to the kind of thinking required in dealing with people than to abstract thinking required in school, They were not opposing abstraction in general, but refusing to accept abstractions that preceded or eliminated experience. The courses that were considered "powerful" for women were those that helped them articulate "their ideas from the darkness of private experience into a shared public language" (Belenky et al. 1986, p 203), and those that provided opportunities for experiential learning. All women wanted some structure in their educational environments, but more had problems with excessive control than with lack of structure. The authors interpret this finding within the framework of "good" girls who had been socialized to meet other's expectations. Excessive structure or demands of the institution inhibited women's intellectual development because they were still meeting the expectations of their teachers — ironically even more so for kind and good teachers — instead of acquiring their authentic voices. Belenky at al. argue that women need colleges that will help set them free, but that they also need strong support in that endeavor. They elaborate on the metaphors of "connected teaching" and "teachers as midwifes". Connected teaching is epitomized in classes that provide a "culture for growth", a teacher that strives to look at subject matter through students' eyes, and is willing to share with students her/his process of thinking and imperfect reasoning, not only the finished products. "Midwife teachers" help their students to articulate and expand their latent knowledge. In contrast to men — whose cognitive growth according to cognitive developmental theories is triggered by doubt and disequilibrium — the finding of Belenky et al. is that "women found the experience of being doubted debilitating rather than energizing. ... Because so many women are already consumed with self-doubt, doubts imposed from outside seem at best redundant and at

worst destructive, confirming the women's own sense of themselves as inadequate knowers." (Belenky et al. 1986, p. 228)

Belenky and her colleagues concluded that progress toward more mature stages of intellectual, epistemological, and ethical development is the aim of education, citing Kohlberg & Mayer (1972), but they argued that this development for women is facilitated if teachers:

> emphasize connection over separation, understanding and acceptance over assessment, and collaboration over debate; if they accord respect to and allow time for the knowledge that emerges from firsthand experience; if instead of imposing their own expectations and arbitrary requirements, they encourage students to evolve their own patterns of work based on problems they are pursuing. (Belenky et al. 1986, p 229)

McAninch (1993) provided a discussion of the application of Belenky's findings to teacher education. She claimed that it was reasonable to expect that most entering preservice teachers were subjective knowers, while many others were received knowers, and that teacher education programs as well as public schools were the contexts that were rarely conducive to development beyond subjective knowledge. She hypothesized that the subjective knowers will value practica and reject lectures, texts, or professors as a source of knowledge, not because of long apprenticeship in observation, but due to their epistemological orientation. Another hypothesis was that the received knowers will become subjective knowers when they assume classroom responsibilities. She also elaborated on the notion of domain specific epistemological perspectives. For the procedural or the constructed knowers, McAninch proposed the possibility that they will remain proceduralists or constructivists in some domains while becoming subjectivists in respect to teaching.

Stone (1987) provided a sharp critique of Women's Ways of Knowing. She pointed that the authors shy away from an explicit claim about linear sequence of development, but that their work was still founded on developmentalists premises and categories, and that it contained several implicit claims of linear hierarchy. Stone is suspicious of developmental models in general because they portray human behavior in a too-regulated fashion, tend to devalue persons in lower stages of development, and are often misused by attaching labels to students. She also argues that "developmentalism often served as a harmful driving force in education rather than as a helpful descriptive tool" (Stone 1987, p. 308). She perceived Belenky and her colleagues as functioning from a traditional masculine assumptions that thinking and feeling are separate spheres of cognition, and valuing feeling and intuition less than rational thinking. Stone claimed Belenky et al.'s (1986) study was biased against women, specially against those from lower social classes that were found to hold only epistemological perspectives of silence, received knowledge, and subjective knowledge. Stone used Hoffman's (1986) argument that "the book that could make the greatest difference in our practice of teaching women students, acknowledges neither the political nature of its own conclusions nor the political movement that gave legitimacy to women's learning as a field of study" (Hoffman 1986 as cited in Stone p. 310). She proposes an alternative to developmental model for educating women that she calls feminist trialectic. It is based on raising consciousness and in relational experiences. It acknowledges three directions as aims of education for women that were not considered developmental. All three are based on aspects of relation between self and others. The first one is reasoned self-reflection, or becoming aware of and articulating own beliefs. The second direction is a responsible connection with close others by entering group conversation and adapting to and learning from that interaction. The third one is a critical appraisal of experts/authorities and building own theory. Stone's points are valuable in making us even more aware that cognition, sense of self, and research discourse are embedded in social group memberships, as well as in historical and political contexts. On

the other hand , I conceive Women's Ways of Knowing as a big step forward towards the education for women since it was the first comprehensive study that examined women as knowers and learners, as well as their particular experiences and needs.

Teachers' Socialization Framework

The framework of teachers' socialization examines the interplay between individual's needs, capabilities, intentions, and institutional and cultural constraints (Veenman 1984). The studies in this framework focus on the context of teacher education, and on the description of changes in preservice teachers' perspectives in the contexts of institutional settings. Two case studies (Grossman 1991, Holt-Reynolds,1992) are illustrative in examining the interplay between professors' and preservice teachers' language, goals, knowledge and beliefs in the context of a particular teacher education course.

Grossman's (1991) article presented a case study of an English methods course in which students were challenged to think critically about the purposes and methods of teaching English, to develop a common language of discussion and to question the lessons learned through the apprenticeship of observation. Six first-year English teachers were interviewed five times on their knowledge and beliefs about the teaching of English. These interviews were conducted during the time they were enrolled in the methods course, and they were also observed in their classrooms. The methods course sessions were observed and audio taped, the professor was interviewed several times, and the syllabi, hand-outs, readings, and examples of student work were analyzed. The professor encouraged the students to draw upon their past experiences as a source of knowledge, but he also encouraged the students to rethink the familiar ways of teaching through different theoretical frameworks. By critiquing his own teaching, disclosing his intentions and goals, and by engaging the students in analyzing his classes, the professor "invited the students

backstage" and engaged them as collaborators in constructing an understanding the rationales and consequences of certain teaching techniques. The professor also used a number of strategies to help the students break from egocentric perceptions of learners that were based on own learning experiences. He focused on how to teach children who find writing difficult, and he tried to overcorrect for typical practice, by modeling extreme examples of alternative teaching practices in his own teaching. Students were asked to think about "why we make the choices we make and why we ask students to do things" throughout the course, and this course provided explicit structures to prepare students to reflect on professor's and on their own teaching.

Holt-Reynolds (1992) explored the impact of the prior beliefs of nine preservice teachers in the context of a reading course in which the instructor argued for a student-centered, constructivist approach to teaching. Preservice teachers did not accept the instructor's arguments, while they accepted some strategies (writing-to-learn activities, small group peer-led discussions) as occasional additions to a lecture format, but not as an appropriate substitute for traditional teacher-as-teller lessons. Preservice teachers used several arguments to defend the traditional lecture format: listening is active, interested students will listen actively, lecturing is necessary given specific subject matter; lecturing motivates students' interests; and lecturing demonstrates subject-matter expertise. The analysis of their arguments led to the finding that preservice teachers and the instructor defined key concepts (like active, lecture, learning, knowledge) quite differently, while they did not discuss the differences between lay definitions and professional ones in the course. These two sets of definitions were the sources of different values. For example, while preservice teachers defined knowledge as a body of information to be transmitted from the teacher to the students, they valued a lecture format that facilitates such a transmission. The instructor who defined knowledge as socially constructed, valued discussions and small group work, or other strategies that promote bi-directional social interactions. Students and

the instructor also differed in the access to data they had. Students' only source of data was their personal experience, and they conceived of their experience as prototypical and generalizable. Holt-Reynolds concludes that teacher education needs to focus on exploring personal histories and beliefs of preservice teachers and then linking that knowledge to research based thinking about teaching.

In a five-year longitudinal study, Gehrke (1981) tried to create a grounded theory of inservice teachers' socialization. She examined how eleven beginning teachers adapt to the teacher role to meet their own needs, while simultaneously being socialized to meet the demands of school students, parents, colleagues, and administrators. She hypothesized that teachers seek ties with groups that provide optimum security level during role transition, and that as teachers gain more confidence, they focus on less supportive, higher risk groups such as challenging students or parents. She documented this shift of focus from specialized groups (like gifted students, or supportive parents) at the beginning of teacher career to more challenging diverse groups, as the teachers' sense of competence increased. Gehrke's hypothesis could be expanded to preservice teacher population.

There seems to be a need for more case studies about particular courses or teacher education programs from this framework. Other studies of attitude change during preservice or inservice programs also belong to this socialization approach (Tabachnick & Zeichner 1985, Goodman 1988, Luttrell 1989, Holt-Reynolds 1992, Marso & Pigge 1992).

Summary

All reviewed frameworks try to explain changes in preservice teachers' thinking. The first four frameworks focus on the individual, while the last one focuses on the individual as a member of social group within a specific cultural context. While concern,

schema and cognitive developmental frameworks conceptualize the changes from the perspective of an end state (Veenman 1984), dilemma and socialization framework focus on the negotiation of opposing pulls that is embedded in cultural and historical contexts. The dilemma, cognitive developmental, and socialization frameworks are relevant for this research study of entering preservice teachers. The three bodies of research that inform the study will be reviewed in the next section.

Bodies of Literature That Inform the Study

The following review of research studies will be organized according to themes relevant to the proposed study (1) teachers' beliefs, images, and metaphors, (2) preservice teachers' personal, group, and societal contexts, and (3) research about entering preservice teachers.

Research on Teachers' Beliefs, Images, and Metaphors

In a theoretical paper O'Laughlin (1990) discussed the conceptualization of teachers' beliefs from three different frameworks. According to Sigel's (1985) cognitive framework beliefs are considered to be social constructions or categorizations of reality. This model implies that beliefs form a coherent system or ideology. Billig et al. (1988) present the opposite viewpoint that beliefs conflict with each other, and an individual's ideology is a compromise between opposite pulls. They point to the need to explore the dilemmatic aspects of beliefs. The third model, the developmental perspective, looks at the changes or developmental progression of beliefs over time. O'Laughlin argues for inquiry into a broad set of questions related to the construction, developmental progression and the origins of teacher beliefs, as well as the influences of prior schooling and teacher education on preservice teachers' beliefs in order to rethink the foundation of teacher education.

Bell's (1991) study is the only one in this literature review that focuses on early childhood teachers and its conclusions are relevant for teacher education. The author examined beliefs that inform the practice of six New Zealand preschool and kindergarten teachers, and the adequacy of their "operational theories" (or theories built from their experience). The assumption of the study was that the operational theory was adequate if it consisted of a coherent set of beliefs that inform the practice. The methodology of this study differed from other studies since it included the exploration of practice from the viewpoints of teachers, researchers (observers), and children. Observations of four target children in each class were followed by a series of interviews with teachers and children. The interviews with teachers contained structured recall relating to specific recorded incidents and more general questions about teachers' beliefs. Teachers' beliefs were grouped into several categories: function of school, educational goals, learning and development, teacher's role, and play. While preschool teachers identified care — defined as attending to the physical and psychological well being of children — as a priority, kindergarten teachers stressed education as the primary mission of school. All teachers' educational goals focused around children's social skills, while only two of them mentioned children's intellectual development. Four teachers believed that children learn through play and should be left to get on with this by themselves, while five teachers valued direct instruction. While some of those who acknowledged a non-interventionist philosophy tried to affirm or enrich children's activities, others spoke of engaging with children only if there was a problem. Teachers' role perception were consistent with their actions.

Teachers perceived themselves as relatively powerless to change behavior which was learned at home or to influence a child's potential for learning. When teachers interacted with children, their beliefs about their role shaped those interactions. Only teachers who mentioned children's thinking were observed to engage in extended conversations with

children, while most teachers focused on giving instructions about social norms. Another significant finding was that teachers eventually dismissed less responsive children as "developing in their own way", or in other words, teachers lowered their expectations for less responsive children. Five teachers who were formally trained in early childhood education exhibited a discrepancy between what they said about play and their actual practice. When asked about play, teachers described it as "everything a child does", developmentally appropriate ("child's work"), and the context of learning ("children learn through play"), i.e., any play was perceived as valuable. In practice, teachers often interrupted self-initiated play and directed children to other activities. They used the term play to signify only physical or imaginative activities. In spite of teachers' espoused commitment to play, they were rarely observed to interact with playing children or to play themselves, and the author concluded that despite their statements about the high value of play, it was perceived as having limited value. This study triggers a hypothesis relevant to teacher education that prospective teachers might acquire the new language during their teacher education, without changing their deeply held beliefs.

O'Laughlin (1991) examined the beliefs of nine student teachers, using journals and two open ended in-depth interviews. He was interested in eliciting narratives that would uncover students' current construction of reality. His focus was on studying the nature of student teachers' ideological systems and the issues that they perceived as dilemmatic or contradictory. His assumption was that as student teachers became more knowledgeable about teaching their ideologies of teaching would become less cohesive, and they would be more aware of the contradicting pulls in teaching. The initial results of the study reported in this paper confirmed the premise of the study that teachers' beliefs did not constitute coherent ideologies. In my opinion, this is a kind of a circular argument without acknowledging that the way his premise influenced the ways the questions were posed, and therefore helped confirm his premise. He also concluded that beliefs were not linearly

related to teaching practice, and that equipping students with a single progressive ideology was not enough to enable future teachers to become the agents of change in schools. O'Laughlin argued for studying the role of ideology and contradiction in pedagogy during teacher preparation.

In a similar study, Rodriguez (1993) examined six science student teachers' belief systems during the course of a year, using three in-depth interviews as well as observations of the students in their practicum sites and in their university classes. All student teachers had well defined beliefs about teaching and learning. After first attempts to teach, they felt frustrated and disappointed. They expected to get "fail-safe tools by the university. Hence, they seemed to walk in their classrooms with an imaginary bag of tricks, full of ideas, strategies and educational theories of teaching and learning, but they had problems figuring out which trick to use and under what conditions" (Rodriguez 1993, p. 218). Their own ideas for resolving their frustration revolved around discussing more practical situations in their courses, or in other words "expanding their bag of tricks". The author cautioned teacher educators that giving preservice teachers more practical examples of what to do in the classrooms without discussing why they should do that, would not help. He proposed "abandoning the language of persuasion and tuning into the students' language of perception" (p. 220). In other words, instead of presenting different theoretical models that should guide their classroom actions, teacher educators might spend more time uncovering students' current beliefs as the source of their actions. Another finding of this study was that student teachers adjusted their perspectives to fit school contexts, but still kept the essence of their prior beliefs about teaching. Rodriguez suggested that prior to making any attempt to alter students' beliefs, teacher educators needed to understand why students perceived most teacher education courses as theoretical and irrelevant for classroom practice. This study was methodologically well designed and its results seemed significant. They pointed to the importance of working with preservice teachers' beliefs and providing

concrete opportunities for experiencing the alternative theories instead of just confronting them as inadequate.

Freeman's (1991) study addressed how teachers change their thinking and perceptions during in-service education, by following four teachers through an eighteen months period that included two summer sessions of an in-service program and a year of teaching in their schools. Interviews, analysis of written work, and observations were used as data collection techniques. The author used Shulman's metaphor of "making the tacit explicit" to characterize the changes in participants' perspectives. His conclusions were that the influence of the in-service program lay in the medium of shared professional discourse among teachers, and that "making the tacit explicit" was not a linear process of revealing what was known, but a dialectical process in which tacit knowledge interacted with, and was reshaped by new explicit understandings.

Cole (1989) described a program of experiential reflective activities that accompanied an introductory course in educational psychology, and preservice teachers' reactions to the program of activities. One hundred and fifty preservice teachers, enrolled in the course, anonymously evaluated the activities at the end of the semester using a response sheet format. They were asked to comment on the relevance and usefulness of the activities. Through each activity preservice teachers tested, through a period of time, their own understanding of certain topics (e.g. styles of classroom management, effective teaching, roles of a teacher, discipline, learning styles...), and at the end of the program they articulated this by writing their "Beginning Personal Theory of Teaching". Although the description of the program was not detailed , students' positive comments about the program imply that examining implicit personal theories need not be an unattainable, or developmentally inappropriate task.

Weinstein (1990) studied the effects of an introductory course in education on preservice teachers beliefs about good teaching. She administered a questionnaire to 38 preservice teachers taking the course. Twelve of them were randomly selected for interviews in the following semester, to identify the changes in their thinking as a result of one semester in the teacher education program. The course consisted of 3 hours of classes per week during a semester, and 3 hours of field experience in the second half of a semester. The most interesting result was the lack of change of beliefs that took place during the semester. Students emphasized interpersonal relationships (caring, warmth, promoting children's self-esteem) and downplayed the academic dimension of teaching. Their conceptions of "a really good teacher" also remained largely the same, with a focus on affective and interpersonal domains. The change was that at the end of the semester significantly larger number of students cited the following characteristics of good teachers: the ability to maintain discipline, enthusiasm for teaching, and the ability to meet the diverse needs of students. She concluded that teacher education should consider alternative ways to help preservice teachers examine their preconceptions and come to terms with the complexity and uncertainty in teaching. She suggested:

- Using cohort experiences instead of allowing each student to proceed through a teacher education program as an individual with weak or no ties or any opportunities to share ideas and observe others.
- Modeling "thinking aloud" about dilemmas of teaching in teacher education courses.
- Communicating the idea that failures in teaching can not be avoided by following certain methods faithfully, and that failures require reteaching not labeling (such as: "because of students home situation").
- Allowing preservice teachers to work with low achievers.
- Using the analysis of videotapes of expert and novice teachers, as well as tapes of preservice teachers to help uncover the invisible aspects of teaching.
- Using case studies to grapple with ambiguities and dilemmas of teaching.

She noted that her proposed strategies mirrored those suggested by educators striving to promote reflection, and that much could be learned from difficulties educators faced in that process. Her goal was to promote "realistic optimism" grounded in an accurate assessment of personal skills and knowledge instead of "unrealistic optimism" about future teaching performance based on fantasy. This study — that identified the lack of change in preservice teachers' beliefs about teaching at the beginning of teacher preparation — demonstrated the need for longitudinal studies of teacher beliefs.

Luttrell's (1989) study revealed that beliefs about knowledge were grounded in gender, race, and social-class. The author interviewed 200 black and white working-class women in two adult basic education programs. After initial unstructured interviews and classroom observations she selected fifteen white and fifteen black women for three in-depth interviews, using a stratified selected sample on a number of variables. The first interview focused on the past school experience, the second one focused on current school experiences, and in the final interview women were asked to describe their life histories or to respond to the researcher's interpretation of their experiences. Two main themes emerged from the interviews - the importance of the concepts of common sense and intelligence in respondents' self-definitions. Participants' notion of common sense was culturally based. They defined common sense as a way to assess the truth on the basis of what people from one's own cultural group have seen and have known to be true. It was also a class-based form of knowledge, and a way for women in the study to distinguish themselves from middle class professionals and identify themselves as working class. Common sense affirmed and validated working-class experiences and hence created a sense of community along the class lines. For both black and white women, common sense was often defined as "real intelligence" based on life experience not schooling. Nevertheless black women claimed "real intelligence" for themselves while white women in the study did not. The author attributed it to different experiences in the racist society. Black women did not

consider their work to be trivial since it contributed to black survival, to keeping black families together, and it also incorporated the knowledge of dealing with racism. White women, on the other hand, felt alienated from their knowledge and power. It seemed that for both genders whites perceived learning as lodged in school, while blacks — having been excluded from schools — were more aware of other sources of learning. White women "seek school knowledge to empower themselves. Since it is clear that their intuitive common sense knowledge is valued less than men's learned common sense, they turn to school knowledge to legitimate their opinions, voices and needs" (p. 42). Since white working-class men were considered to be more powerful then white working-class women, white women devalued their own common sense. Men's common sense was acquired through work-related experiences, while women's common sense was considered intuitive and believed to be embedded in relations with others, not through dialogue and thinking. White working-class women did not recognize their knowledge as learned. Ironically black working-class women who experienced oppression both as blacks and as women validated their knowledge more than white women.

Another theme in the women's narratives — intelligence —was perceived as a trait acquired through schooling. White working-class women mentioned only men as examples of intelligent people. Intelligence was perceived as undermining working-class culture. Women "suggested that the more schooling one has, less common sense she is likely to have" (p. 38). They also believed that intelligence, rather than social-class, determines one's place in the social hierarchy. "The ideology of intelligence is a filter through which these women think about and express themselves as adult learners, denying the actual experience and knowledge they have in their everyday lives." (p. 38) The question is whether white middle-class women in preservice teacher education think of themselves as intelligent, and do they consider intelligence a filter for success in life? If they do, any attempt to prepare

them to become the agents of change in tomorrow's schools might start by reaffirming their present intelligence and knowledge.

Hollingsworth (1989) examined prior beliefs and intellectual changes related to reading instruction in a one-year longitudinal study of fourteen preservice teachers enrolled in a Graduate Teacher Education Program. This study used qualitative methods and several data collection techniques. The participants were chosen among new students in the program after all of them (N=53) were interviewed at the beginning of the program to determine their knowledge and beliefs about reading and classroom instruction. Preservice teachers with a wide range of beliefs about teaching and reading instruction, and those who would teach in a variety of classroom contexts and grades were selected for the sample. Other data sources were information about the reading course (observations, task analyses, interviews with instructor) and other classes, bi-weekly classroom interviews, and observations about reading instruction in the class, supervisors' observations and conferences, tape recorded supervisor interviews, and weekly preservice teacher journals reflecting the changes in their thinking about reading instruction. This study used many data sources to carefully describe the changes in preservice teachers' beliefs and potential program influences. The results suggested that pre-program beliefs served as filters for processing program content and making sense of classroom contexts. The ultimate level of student teachers' aptitude to teach reading was conceptualized as the ability to understand students' learning from text-related tasks. To reach that level preservice teachers "had to organize their thinking in specific ways to overcome the complexities of orchestrating the classroom." (p. 185) Such organizers were modeling cooperating teacher's approach, or confronting inappropriate beliefs. Preservice teachers were able to achieve the latter by working with cooperating teachers whose ideas were somewhat incompatible with their own, but who allowed them to try their own ideas.

The conclusion that matched pairing (in which student teachers were placed with cooperating teachers whose philosophy of teaching they agree with) hindered knowledge growth since it promoted rote copying, has important implications for teacher education. Maybe instead of allowing students to choose cooperating teachers, they could be placed with those cooperating teachers whose teaching philosophy differs from their own.

> Additionally, results suggest that there might be some sequential order to program focus that could limit the cognitive overload and improve learning if preservice teachers were not required to think about all the aspects of teaching at once. (p. 186)

Also, the results demonstrated that supervisors had a definite impact on preservice teachers' learning, and therefore the education of supervisors might be an important step in improving teacher education. This is one of the best designed studies among those examined in this literature review, and its findings are significant for design of field experiences including student teaching.

Several research articles focused on preservice teachers' *images* of teachers and teaching, or *images* related to themselves as teachers, their past school experience, and their future students, classrooms and schools.

Using in-depth interview and questionnaire as data collection methods, Zitlow (1986) focused on 8 undergraduate and 12 graduate preservice English teachers' images of high school and exceptional teachers. The image of preservice teachers' high school was closely related to their feelings about the schools. Participants described their high school as places of nurture, places of fun, or as places of control and competition. Eighteen out of twenty participants identified exceptional teachers in their past. What distinguished outstanding teachers was their energy and honesty, their human side, and meaningful projects that promoted learner's involvement.

This finding is consistent with Weinstein' s (1989) research about the image of "a really good teacher". In her study, a questionnaire consisting of open-ended and fixed-response questions on students' images of a really good teacher and on their comparison of themselves to other students, was completed by 113 undergraduate students and by 131 cooperating teachers. The students were enrolled in a sophomore-level Introductory Education course required for formal admission to teacher education . Preservice and inservice teachers most frequently cited emotional characteristics of really good teachers (caring, compassion, friendliness, warmth). They also valued teachers' ability to relate to children, and patience. Knowledge of the subject matter was another important factor in defining "really good teachers". The results indicate that preservice and inservice teachers perceive good teachers in terms of their interpersonal relationships, which is discrepant with policy makers' definitions of good teaching in terms of students' learning (measured mostly through achievement tests).

Goodman (1988) used interviews and observations in his study of twelve preservice teachers at different points in their teacher education. He extracted several guiding images that organized preservice teachers' perspectives into a practical philosophy of teaching and analyzed how they interpreted these images differently. The images were grouped in two major perspectives that formed the basis of a practical philosophy of teaching: teaching as a problem of control, and teaching as the facilitation of children's growth. The first perspective consisted of several images: cooperation, authority, and survival. The image of *cooperation* was interpreted by 9 preservice teachers as following a set of prescribed rules, while 3 participants in the study interpreted it as understanding the nature of group living. Most preservice teachers wanted to achieve institutional *authority*, in other words to "be seen as teachers". These preservice teachers most often perceived children or their families as "the problem" in a case of a conflict, while they viewed themselves as agents of the school as institution. A few preservice teachers aimed at personal authority from inside the

classroom. This view was connected with locating "the problems" in mismatch between children's personal needs and school constraints. Most preservice teachers tried to find a balance between two types of authority, but "since it was difficult to be both a friend and a teacher, most students opted for the security of institutional rather than personal authority" (p. 126). The image of *survival* meant the ability to move through the curriculum smoothly for most preservice teachers, but it had the meaning of "doing what I want" for several participants in the study.

The perspective of teaching as the facilitation of children's growth was founded on the images of *individualization* and children's *self-concept.* Small group work and allowing students to work "at their own pace" were consistent with preservice teachers' notion of individualization. It is interesting that preservice teachers believed that individualized teaching is related to the awareness of children's interests, but as they gained more experience through field placements, the connection of individualization and student interests faded. Goodman noted that preservice teachers related children's self-concept with teacher's interpersonal concerns, i.e., they assumed that a teacher can enhance children's self-concept by being warm and friendly, but they did not acknowledge that students' learning can also enhance children' self concept. Goodman's study is significant since he attended to emotional as well as intellectual aspects of preservice teachers' perspectives, and analyzed the meanings preservice teachers give to the key concepts. He concluded that:

> pre-professional images formed an "intuitive screen" through which they interpreted their professional education. ... When exposed to new ideas or experiences, students tended to act first on an intuitive rather than intellectual level. No matter how logical and sound an idea seemed, if it directly contradicted a student's intuitive screen, it was usually rejected. (p. 130)

Preservice teachers were willing to explore new ideas but this exploration threatened their sense of security at an age when they were coming to terms with their own identity away from home. Based on the results of this study, that acknowledged preservice teachers' active role in developing their perspectives of teaching, Goodman proposed a dialectical view of

teacher socialization. This perspective recognized the role of past and present school experiences but also the ongoing internal dialogue through which preservice teachers clarify their understanding of teaching. He applied the dialectical perspective to teacher education, by suggesting that it should include not only the opportunities to express preservice teachers' views about teaching, but also the discussion of the meanings they give to the images of teaching.

Calderhead and Robson (1991) followed twelve preservice teachers through the first year of teacher education to identify their assumptions and understanding of teaching and learning, related to a teacher education course they were taking at that time. Methods of data collection consisted of 4 interviews spread across the year, participants' responses to two contrasting styles in teaching mathematics, on a creative writing activity they viewed on the tape, and on a written elaboration of an imagined teaching situation. As a way to gain access to their beliefs, the analysis focused on students' images or mental models of teaching and on themselves as teachers. Participants developed the images of good and bad teaching based on several teachers from their past who stood out as role models. They sometimes linked the images of good teaching to their own personality attributes. In general, their images of teaching were inflexible and focused on few specific activities. They relied on these images as recipes, but lacked the skills to adapt them to specific contexts and children. The authors singled out one male student as atypical since he had a less clear images of ideal teaching but focused more on the principles he wanted to enact in his classroom. An alternative interpretation is that this exception stemmed out of different modes of moral reasoning, namely that this particular student espoused his morality of justice through these principles, while the rest of predominantly female participants used idealized images of their own teaching to make meaning of their orientation towards the morality of care. The conclusions of the article pointed to the importance of acknowledging and challenging students' existing images of teaching during teacher preparation, and the

authors suggested the use of imaging in improving teaching performance as it is currently used in sports coaching.

A number of studies focused on teachers' *metaphors* as a way to approach teachers' beliefs. Munby (1986) stressed the importance of exploring teachers' beliefs from the perspectives of the subjects and through their own language. Munby & Russell (1990) pointed that a "careful attention to how one describes the world appears to give clues to how one constructs it" (p. 121). Their assumption was that realities were constructed metaphorically and that exploring teachers' metaphors was a path to understanding how they construct their professional worlds.

Tobin (1990) acknowledged the potential of metaphors for changing teachers' beliefs. By rethinking the roles of teachers in new metaphors during teacher education, different sets of beliefs could be activated. In his study of eleven preservice teachers' metaphors of themselves as teachers, he found the links between biographies and these metaphors. He noted that the use of metaphors to approach preservice teachers' beliefs encouraged a narrow focus on the self. Hence, he suggested supplementing the study of metaphors with analysis of wider contexts of teaching. He found out that some preservice teachers who complied with the dominant metaphors expressed by their cooperating teachers, were empowered by the metaphor analysis to reframe their problems and seek out their own new metaphors. I would suggest that exploring the dominant metaphors of teacher education program faculty, and comparing them to the metaphors of preservice teachers would add to the knowledge of how preservice teachers negotiate their beliefs.

Bullough (1991) explored personal teaching metaphors of secondary graduate certification students. Students were asked to write education-related life histories and to identify the critical incidents that affected their decisions to become teachers and influenced

their thinking of themselves as teachers. Based on their written histories, they identified the metaphors that best captured their visions of themselves as teachers. The article focused on describing three case studies with metaphors of a teacher as a "husbandman", a "butterfly", and a "devil's advocate". Students reflected on their metaphors during a course of the semester as they were student teaching. As they struggled to establish congruence between teaching practice and metaphors describing teachers, they modified the metaphors (a "butterfly" turned into a "chameleon"), and clarified their personal philosophies of teaching. Reflecting on their metaphors also helped them to frame the problems they were experiencing. The researcher concluded that the lesson for teacher educators was to respect the teacher metaphors of novice teachers since "educationally there is no escaping from them, only building upon them or assisting in their reconstruction" (p. 50).

Research about Preservice Teachers' Personal, Group, and Societal Contexts

At the level of the individual, it is a common sense notion that previous experience and particularly educational experience is crucial for a person's beliefs and images about teaching. On this level, biography can mold the beliefs. For example, Lortie (1975) recommended that future teachers be helped to examine their past, to see how it shaped their beliefs about the way school ought to be (cited from Feiman-Nemser 1983). On another level, preservice teachers, as members of society and certain social groups, are exposed to teaching practices and myths shared by a social group or a culture (Britzman, 1986). Feiman-Nemser recognized both of these levels when she wrote: "Learning to teach begins long before formal programs of teacher preparation. Its roots are personal experiences with parents and teachers and images and patterns of teaching shaped by the culture" (Feiman-Nemser 1983, p. 167). This section is a review of empirical studies that focused on the influences of biography, social group, or society in becoming a teacher.

Goodson (1981) pointed that much of research on schooling neglected teacher biography, thereby solidifying the stereotype of the classroom and the teacher, as if "whatever the time, whoever the teacher, it's all much the same" (p. 68). He noted that the assumption that teachers are interchangeable and timeless became normative, and that it was reiterated even by interactionist and ethnographic studies that focused on a classroom lesson as a basic unit of analysis. He argued for "life history investigations set against the background of evolutionary patterns of schooling and teaching" to counteract "the depersonalized, ahistorical accounts of schooling to which we have become accustomed" (p. 74).

Butt, Raymond & Yamagishi (1988) suggested that many teachers pay no attention to research, because they consider that research is not written or done for teachers. Hence, as researchers ignore teachers, teachers ignore researchers. As a result, educational research contributes little to improving teachers' practice. The authors argued for a new method of research — "autobiographical praxis" — which can be defined as a collaborative inquiry into teacher's knowledge, conceptualized as interaction of a person and context over time. Butt and his colleagues described the teacher as a learner, and classroom change as a learning process. They argued for recognizing the importance of *teacher's voice* and for the use of case studies of teachers' personal and professional life to illustrate the process of constructing teachers' knowledge. They assumed that teachers bring to teaching a particular set of predispositions and personal knowledge gained through their life histories, and that teachers' knowledge was therefore grounded in biography as well as in current contexts. Another assumption is that teachers' knowledge is problematic in nature. They documented that teacher's knowledge was gained and expressed through a dialectical relationship between the person and the context, recognizing the active role of teachers in making sense of their current and past experiences in classroom, while at the same time being constrained by them. A contribution of this discussion of new possible approaches to research on

teaching, is the identification of over-reliance on positivism as a source of crisis of educational reform in the last couple of decades. Reformers have mostly been outsiders who have not understood classroom reality. They have been in a position of power over teachers, and they have defined the changes they wanted to achieve, as well as instruments to measure these changes. Butt et al. argued that the collaborative study of personal professional knowledge provides teachers with power to transcend their present situation, while helping researchers to become literate in classroom reality. Instead of using a positivist framework to assess the "effectiveness" or direct relevance of teachers' beliefs on their actions in the classroom, this approach argued for a more holistic view of research on teachers' thinking. "How teachers' thoughts, actions, and knowledge have evolved and changed throughout their personal and professional lives will help us understand how classrooms have come to be the way they are and how they might become otherwise" (p. 96). Hence this legitimization of teachers' individual and collective voices can be seen as an issue of teacher empowerment and emancipation.

Holt-Reynolds' (1991, 1992) discussion of the relationship between the personal history-based beliefs of preservice teachers, and the principles of teaching used by a professor in an education course, is important because it clarifies how preservice teachers use their beliefs to inform their decisions and actions. She argues that teacher educators need to organize course work in such a way that preservice teachers have the opportunity to become aware of these beliefs and to question them. But she also cautions that:

> These preservice teachers and others like them want to be teachers in part because they hold these very lay beliefs we want to encourage them to examine critically. They want to teach because they believe that students are capable, because they believe that students have not been given an adequate chance or excellent teaching, because they believe that, through the force of their own personalities and efforts to provide interesting, motivating experiences for students. ... We need to be careful to preserve what is the most valuable about those beliefs. (Holt-Reynolds 1992, p. 346).

Knowles & Holt-Reynolds (1991) suggested "making the internal external" through teaching and interacting with preservice teachers. The authors acknowledged two fundamental principles about how preservice teachers learn to teach. The first one was that preservice teachers could not be talked out of what they know and believe about schools; they needed to experience alternatives first-hand through their course work. Hence, teacher educators needed to "practice what they preach" . The second one was that preservice teachers considered that their experiences as students were prototypical. They developed attributions (for example: "This was a good lesson because of ...") for their experiences as students in school but they knew only about the observable domain of teaching — teacher behaviors. They did not know much about teacher thinking or teaching rationales. Therefore, in order to influence the elements of instruction perceived as related to different leaning outcomes, teacher educators needed to externalize their thinking while employing particular activities or strategies to allow preservice teachers to gain insight into typically "invisible" aspects of teaching.

> We do not negate or try to supplant preservice teachers' perceptions that being "interesting" and "caring" and eliciting "student involvement" are important features of good instruction. We do suggest that preservice teachers come to understand these as elements of presentation, not as principles of good instruction. "It was good because it was interesting" is a common, pervasive, and ultimately dysfunctional attribution. In order to enlarge, challenge, and inform this particular thinking directly, we have sometimes presented preservice teachers with highly interesting but totally vacuous activities and then invited their critique. (Knowles & Holt-Reynolds 1993, p. 105).

They also suggested "making the external internal" through autobiographical writing, interactive journals, peer support, and observations. And finally they acknowledged that their own personal histories influenced the ways they teach, the questions they asked, and the issues they focused on, so as teacher educators they made their biographies known to their students.

Britzman (1986, 1991) constructed the most comprehensive perspective on the relationship between biography and teacher beliefs. She focused on three cultural myths

related to teacher education: everything depends on the teacher, teachers are experts, and teachers are self-made. These cultural myths contribute to preservice teachers' "taken-for-granted views of power, authority, and knowledge, while serving to mystify school structure" (Britzman 1986, p. 448). They provided a set of images, and an illusion of order, control, and certainty in the uncertain and ambiguous world of teaching. They also supported the notion of a teacher as a rugged individual, and devalued social interdependency as a sign of weakness, and therefore further isolated future teachers from each other. In addition, the myths framed the language and discussion "about power, authority, and knowledge that highlights individual effort as it trivializes school structure and the agency of students" (Britzman 1991, p. 222). She went even further and claimed that the cultural myths of the self-made, autonomous, expert teacher support the ideology of blaming the victim, by assuming that "the individual is solely responsible for what is in fact the product of complex social circumstances and forces" (1991, p. 237).

Britzman (1991) provided a poignant analysis of the dynamics of biography in learning to teach. She pointed out that the exploration of biography "cannot be limited to the nostalgia of the personal or the rhapsody of the unique" (p. 233), but must be situated in past and present historical contexts, and in the construction of the subjective self as a member of social groups, and therefore influenced by race, social class, gender, and sexual orientation. Her basic assumption was that "meaning is historically contingent, contextually bound, socially constructed, and always problematic" (p. 14). She noticed that social group membership is rarely mentioned in personal reflections about teaching. She acknowledged a contradiction that stemmed from the value attributed to "fairness" — understood as treating everyone equally — that worked against recognition of redressing past and present inequalities. "Fairness" also required teachers to "shed" their own social casing and personal preferences, or to deny, instead of acknowledging, historic oppressions.

When preservice teachers were alienated from the social context of teaching, by a combination of two factors — the acceptance of cultural myths, and their inability, during student teaching, to change established practices that they disagree with — then:

> the values embedded in the institutional biography become sediment, and serve as the foundation for the cultural myths which legitimize a hierarchical image of authority, a reified view of knowledge, and a rugged individualist stance. ... The value of individualism, inherent in each of these myths, requires an over-reliance on the self, which actually mandates an over-dependence on one's institutional biography (Britzman 1986, p.453).

She identified hidden contradictions within teacher education: teaching was presented as an individual act while it was in fact a social relationship; the reification of knowledge which obscured the existential, social, and political problems of knowing ; and the internalization of school structure in what appeared to be a personally determined practice of pedagogy (Britzman, 1991).

Britzman argues for a dialogic discourse in teacher education. Dialogic discourse examines the educational practices in teacher education both in the local context of a school or university, and in a global context of a society. She also argues for acknowledging the voices of preservice teachers, as well as for offering opportunities for them to consider the perspectives of individual students and youth cultures that differ from their own. She believes teacher education should explore not only the realm of the given but the realm of the possible as well. Learning to teach, from this perspective, is viewed as a social process of negotiation rather than as an individual problem of behavior. Teaching is always the process of becoming, never a finished product, and in this process "the teacher is continually shaping and being shaped by the dynamics of social practice, social structure, and history" (p. 32). Learning to teach, therefore, consists of contradictory pulls and it is inherently a struggle.

Research about Entering Preservice Teachers

A few research studies focus specifically on entering preservice teachers. Among the ones examined in this literature review Weinstein (1990) and Calderhead & Robson (1991), refer to that specific time period of teachers' professional development. There are several other studies about entering preservice teachers that will be reviewed in this section.

Mertz & McNeely (1991) explored cognitive constructs of 10 prospective teachers prior to their entrance to a teacher preparation program. This was a first phase of the longitudinal study of teachers' constructs. A particular limitation of this study was that participants were randomly chosen among the sophomores who identified an interest in teaching but before they applied to teacher education program, and therefore it might not be a representative sample of teacher education students. In contrast to Kagan (1990) who reviewed indirect ways to assess teacher cognition, Mertz and McNeely assumed that cognition could be assessed directly by asking participants how they thought about teaching. In-depth interviews focusing on 8 questions were conducted with each participant. The participants held definite images about the meaning of teaching, their future classrooms, and the students. None of their images was highly developed, and the images typically focused on one dimension of teaching. Almost all subjects had one or two teachers after whom they planned to model themselves. Mertz & McNeely suggested that cognitive constructs appeared to derive from models of "good" and "bad" teaching participants experienced as students. They identified several cognitive constructs or images held by the subjects: teaching as organization and subject matter; teaching as classroom climate and nurturing personal student growth; teaching as developing students' ability to think; teaching as serving ("doing good"); and teaching as engaging and motivating students. This study viewed biography as a major factor that shaped preservice teachers' images prior to formal training. Its results confirmed that preservice teachers held multiple images of teaching prior

to their entrance into teacher education programs, but the study did not explain the how they developed these images. A single one hour interview might not be enough to explore this topic in depth.

The same authors (Mertz & McNeely, 1992) surveyed the total entering preservice teacher population (N=52) at a large university using an instrument in which the students were asked to rank order 11 statements about what they valued and what they would emphasize in their classroom. Another instrument used in the study was a personality-type inventory (Myers-Briggs Type Indicator) that identified person's preferences in several dimensions of Jung's personality theory (introvert/extrovert, intuitive/sensing, thinking/feeling, perceptive/judging). This was a rare study that correlated preservice teachers' beliefs with personality types. The results of the study indicated that the thinking/feeling dimension was "a critical factor in a way in which preservice teachers frame the context and purpose of education, and "see" students" (p. 11). Two thirds of "thinking types" valued most "the ability to develop and expand students' thinking and reasoning", while "feeling types" focused on (1) "helping each student develop self-esteem and feelings of self worth", (2) "helping each student develop his/her potential, gifts and talents to the highest degree possible", or (3) "developing student's sense of joy and excitement about learning". Any discussion of these findings was absent. A possible interpretation is that preservice teachers who were categorized in each of these two personality types unconsciously tried to develop the thinking/feeling dimension in their students that they themselves have valued. This finding about the egocentric mode of functioning of entering preservice teachers has the following implications for teacher education. The first one is the importance of making preservice teachers aware of their own and others' preferences in terms of goals of education in the thinking/feeling coordinates. Secondly, as preservice teachers acknowledge that their own preferences are only one choice among the range of possibilities, they might surmount egocentric functioning towards recognition of differences

among their students. Instead of applying the same framework based on their own strengths and weaknesses, future teachers need support in developing the ability to construct differential scaffolding for their students, based on recognition of individual student's needs or preferences.

Garmon (1993) examined the perceptions of students in a teacher preparation program, by interviewing 11 preservice teachers during their first year in the program. The results of the study showed that the program was not responsive to students' needs, and that preservice teachers and teacher educators had different agendas. While preservice teachers were concerned with their survival in classrooms and with their development as teachers, teacher educators focused on efforts to change school practices. The findings demonstrated that entering preservice teachers often did not understand the ideas presented in their education courses, or/and they disagreed with these new ideas. Students often perceived that their professors did not find their thoughts and concerns to be relevant.

Several other studies focused solely on the demographic characteristics, and entering preservice teachers' expectations. This is a list of some relevant findings from these studies:

- Most entering preservice teachers were from larger families of three or more children (Marso & Pigge 1986).
- Most students had previous teaching experiences (West 1986, Book et al. 1983), and were active in extracurricular school activities, church, and community (Book et al. 1983).
- Entering preservice teachers were confident, idealistic and committed (Knight & Duke 1990).
- They had unrealistic expectations about their own abilities as teachers (Knight & Duke 1990, Marso & Pigge 1986, Book et al. 1983).

- Women were more apprehensive than men about their career choice (Knight & Duke 1990).
- The majority of students rated on-the-job-experience as the crucial source of professional knowledge (West 1986, Book et al. 1983).

Summary and Critique of Research about Entering Preservice Teachers

There are few research studies that focus on entering preservice teachers' thinking about teaching. The reason for it may be the implicit assumption that teacher candidates know little about teaching before they engage in student teaching, and consequently there has been no recognition that they have important things to say. Hence, these teacher educators who are also researchers confirm the very notion they are struggling to criticize, that "only experience makes teachers" (Britzman, 1986). The majority of the studies focused on this period of teacher education used questionnaires as a major data collection method. Many studies used pre-set questions/statements and asked participants to indicate the level of importance of the question or agreement with the statement. This type of methodology that is based on forced choices carries the limitation that the results may not represent the most important issues for participants (Veenman, 1984). More in-depth phenomenological studies of entering preservice teachers conceptions and beliefs about teaching — that take into account person-specific variables (like family experiences, personality traits, social group memberships), as well as preservice teachers' present and past educational contexts — should be beneficial in expanding our knowledge base about students in this important phase of teacher education. From the literature review, it is evident that the goal of many teacher education programs is to change the way students think about teaching. On the other hand, the processes of students' construction of ideas about teaching are not well understood. Qualitative inquiry into preservice teachers' interpretations of their personal and educational history, and of their current notions about

teaching at the beginning of their teacher preparation should help bridge this gap. Such studies could provide resources for designing teacher education curriculum, as well as contribute to the evolution of theoretical frameworks of teacher development.

CHAPTER III

METHODOLOGY

Overall Approach to the Inquiry

I have chosen to conduct this research as a phenomenological study using qualitative methods, including in-depth interviews and document analysis. Qualitative research is based on the assumption that "people make sense out of their experiences and in doing so create their own reality" (Locke et al. 1993, p. 99). Consequently, "qualitative research assumes that there are multiple realities - that the world is not an objective thing out there but a function of personal interaction and perception " (Merriam, 1991, p. 17).

The focus of this research is the study of personal histories of students entering preservice teacher education in order to examine their current notions of teaching, and their sense of themselves as learners and teachers. Qualitative methodology is chosen because it matches the research questions as well as my personal epistemology. The questions ask for descriptions instead of quantification, and they focus on the processes in thinking about teaching, not only on the final products. Another reason that this methodology is chosen is that the population of entering preservice teachers has been rarely studied, and detailed and descriptive data of this qualitative study might provide the resource for future research questions, hypotheses, and curriculum strategies applicable in teacher education. In terms of epistemology, I believe that an individual actively constructs his/her knowledge, through the interpretation of personal, cultural, and social group experiences. It is assumed that qualitative research analysis "demands a sustained level of creative thought rarely required once data are collected in a quantitative study" (Locke et al. 1993, p. 108), but it also leads to

"understanding social phenomena from the actor's own perspective (and) examines how the world is experienced" (Taylor & Bogdan, 1984, p. 2).

Since the purpose of this study is to begin to understand the images of teaching and the self in a sample of beginning teacher education students, it was imperative to design the research in a way that would reveal the notions of teaching and personal identity from the perspectives of participants. Several data collection techniques are used, from initial and demographic questionnaires (Appendix B and D), to personal statements students wrote when they had applied to the Teacher Education Program. However, the main data collection method is a series of two in-depth interviews at the beginning stage of the Program. Interview questions are listed in Appendix E and F. All data collection methods are discussed in more details later in this chapter.

The Participants and Sampling

The participants were chosen from among three groups of students (1) those admitted to the Early Childhood Program in the Spring and Summer semester 1994, (2) students enrolled in the course Child Development in Spring 1994 who at the end of the semester expressed their interest in enrolling in the Early Childhood Program, and (3) students taking the course Introduction to Early Childhood Education in the Fall semester 1994. Data were collected for sixteen students. Among them, interviews with fifteen students were transcribed and analyzed since the quality of audio-taped interviews with one student was poor. Out of fifteen participants twelve were undergraduate students, two were post B.A. students enrolled in the Early Childhood Certification program, and one was a masters degree student. Twelve participants are in the beginning stage of pursuing teacher certification for grades N-3. These students are the second-year cohort of students fulfilling the new state requirements for certification. At the completion of the program they

will be provisionally certified to teach preschool through third grade, and also qualified to teach mainstreamed special needs children. The home institution for all students except for one is the University of Massachusetts in Amherst.

The method of purposeful sampling (Seidman 1991) was used to select sixteen preservice teachers to be interviewed. Purposeful sampling included maximum variation sampling to assure the assessment of the maximum range of individuals within the studied population. In this case I wanted to make sure that the sample included preservice teachers of different ages, genders, ethnicities, interests, and previous teaching experiences. The number of participants was chosen to allow enough variety to represent the total population entering this particular Teacher Education Program and to still be manageable in terms of time needed to transcribe the interviews and analyze the data by a single researcher. Access negotiation proceeded favorably with my committee members who served as faculty in the Program.

The following is a brief overview of demographic data. Fourteen women and one man participated in the study. In terms of racial background, fourteen of them define their racial identity as White and one as Hispanic. Most participants define their social class background as middle class. All fifteen entering preservice teachers have siblings. While seven are the oldest children in their family of origin, two are middle children, and six grew up as the youngest children in the family. Thirteen out of fifteen grew up in the same geographic region of the U.S. where the study was conducted and their families still live within the 100 miles radius of the University. All of their parents have at least a high school education. For ten out of fifteen participants the father's education exceeds the mother's, while the mother's education is higher than father's in two cases, and both parents' education are of the same level for three students. It is interesting to note that eleven out of fifteen students will at the completion of the Program be the first generation of female four-year-

college graduates in their families. Three students have their own children. More information about participants is presented in Appendix H (Initial Sketches) and Appendix I (Demographic Characteristics).

The Setting

The setting of this research is the Early Childhood Education and Development Program at the University of Massachusetts in Amherst, a program within the School of Education. Preservice teachers who graduate from this program are provisionally certified to teach in public school settings from preschool through grade three.

These are the required courses for undergraduates and post B.A. students pursuing Early Childhood Teacher Certification: Child Development, Introduction to Special Education, Reading Methods, Math Methods, Integrated Curriculum Design, Pre-practicum in Early Childhood Education, Practicum I - Preschool, Seminar for Preschool Practicum, Practicum II - K-3, and Reflective Seminar.

The Program was reorganized in 1994 to include both Early Childhood Education and Human Development Program (Program Folio, 1994). At the time of the study Early Childhood Education and Development Program had eight faculty members, around sixty undergraduate students, and twenty post B.A. students. The philosophy of the Program articulated in a Program document (Program Folio, 1994) affirms children as active learners, and recognizes the significant role of play, active exploration, and emotions in learning. The foundation of the Program is based on social constructivist philosophy, and a belief in inclusive education that values the diversity of backgrounds and each child's uniqueness. The Program also advocates the integration of curriculum areas, and holistic view on education (Program Folio, 1994).

This research setting was chosen for a number of reasons: accessibility, my agreement with the constructivist philosophy of the Program, and the interest of faculty members in application of research findings to curriculum development.

Data Collection

The following section examines the procedures and rationale for data collection methods in this study.

Initial Questionnaire

The initial questionnaire (Appendix B) was used to obtain information about potential participants in the study. It allowed me to contact the students who expressed their interest in participating in this research, and to obtain information about their age, gender, race/ethnicity, sibling status, education level, prior teaching experience, and other interests apart from teaching. It was used as a screening device to select both women and men with a range of ages, ethnic origins, education levels, prior teaching experiences and interests. The assumption behind this method of selection of participants is that maximum variation sampling would enhance the possibility that participants fairly represent the larger population of entering preservice teachers to early childhood programs.

Demographic Questionnaire

The demographic questionnaire (Appendix D) was used to obtain additional demographic information such as the educational background (schools they attended), family income, parents' education levels, and ultimate career goals. Participants filled out

this questionnaire prior to the beginning of their first interview. Data from the demographic questionnaire supplements the information obtained from the initial questionnaire. It was also used to chronologically sort out participants' educational histories on which they reflected in their interviews.

Personal Statements

Twelve out of fifteen participants in this research were already admitted to the Early Childhood Program at the time the study was conducted. The personal statements they had written as a part of the application procedure to the Program provided an additional information about their images of teaching and visions of themselves as teachers. Data from these essays were triangulated with data from the second interview to increase the trustworthiness of the research.

Interviews

Two kinds of interviews were used in this study, in-depth interviews with participants, and informal interviews with professors in the Program. In-depth phenomenological interviewing was chosen since it allows the researcher to find out about things she/he cannot directly observe, such as personal history, meaning making (interpreting experiences), or feelings (Patton 1990). The purpose of this study was to inquire into preservice teachers' perceptions of themselves, teaching, students, schools, and good teachers. The phenomenological interview was the most appropriate research tool since it allowed the examination of a topic in the context of the person's life history, and provided a rich narrative about the personal interpretation of experience. The format of two in-depth interviews was modified from Seidman's (1991) pattern of three interviews to accommodate the specific focus of this study. Seidman proposed a series of three in-depth

interviews — the first one centering on life history, the second one on the details of experience related to the focus of the study, and the third one on the participants' reflections on the meaning of experience. This study was designed to focus on the life history, and participants' notions of teaching, and since most of them were not teaching at the time they entered teacher education, I decided that two interviews would allow for appropriate structure for the topic of this research study. Interview questions were compiled from several sources — the theoretical and empirical research studies from the literature review, questions suggested by colleagues and professors who were acquainted with the early stages of this research, and my own questions. The distribution of questions, and the time format of the interviews was adapted as a result of the pilot study, which was conducted in September of 1994 and consisted of interviews with two respondents. Based on this pilot study, interview questions were sorted out into categories — such as family, self, epistemology, early school experiences, current views on teaching, etc. — to facilitate the process of data analysis.

The first interview focused on the personal history and identity of the students and particularly on their educational history, while the second one focused on their current views and ideas about teaching. Interviews were estimated to last approximately 90 minutes each. A 90-minute format was used to reduce the anxiety of participants which could result from an open-ended time period, and to provide a period that was long enough to allow in-depth insights (Seidman 1991, p.13-14). In practice, several participants needed more time for the interviews and they agreed to come for the third interview. The interview questions are listed in the two interview guides in the appendices E and F. As Seidman noted, "the interviewer must maintain a delicate balance between providing enough openness for the participants to tell their stories and enough focus to allow the interview structure to work" (Seidman 1991, p. 13).

Other interviews included informal interviews with several faculty members in the Early Childhood Education Program, and with a professor teaching a course Introduction to Early Childhood Education. The interviews with faculty members were aimed at obtaining data about the content and orientation/philosophy of the Program. Learning about the syllabus and themes discussed in the introductory course helped me to identify some influences of the Program on participants' images of teaching. Thirteen out of fifteen students were taking that course at the time they were interviewed.

The Process of Data Collection and Management

All new undergraduate and post B.A. students were sent a letter of invitation to participate in the study together with the initial questionnaire, prior to the beginning of the Fall semester 1994. The students who finished the course Child Development in the Spring semester 1994, and who expressed their interest in enrolling in the Early Childhood Program, were contacted prior to the beginning of the Fall semester and interviewed during the first two weeks in September. The students taking the course Introduction to Early Childhood Education were contacted during the first week of classes. The students who wanted to participate after the initial contact were met in person to schedule the interviews, and answer any questions or concerns they might have. All the interviews were conducted during the first two months of the Fall semester 1994.

The spacing of the interviews ranged from a couple of days to four weeks apart. The interviews were scheduled as soon as possible after the semester started, to minimize the impact of other education courses on students' perspectives. Two interviews scheduled close to each other reduced the possibility of idiosyncratic interviews (Seidman, 1991), or in other words that an interviewee would be distracted by some outside circumstances in such a way to significantly affect the responses while the interviewer was not aware of this factor.

Data management - the procedures to record data in a systematic manner in order to facilitate analysis (Marshall & Rossman, 1995) was facilitated by the following procedures. Participants filled out an initial and the demographic questionnaire prior to the first interview. I tape recorded and fully transcribed all of the interviews. Data for each participant was kept in a separate file. All data entries were dated and labeled. Patton (1990) asserts that reflection and introspection are important parts of field research. A log of all my interactions with the interviewees, my reflections and feelings after the interviews was maintained. I also kept a personal journal of my reflections, deliberations, decisions and rationales behind them as well as documentation of communication with committee members, doctoral support group and with peer debriefers related to the research design. Copies of the raw data were kept on a computer hard drive and floppy disks. The use of a computer allowed me to "cut and paste" to create new files on key themes, patterns, categories, or individual profiles of participants. A pilot study was used to suggest an outline of possible data analysis categories, and as a tentative guide for data analysis approach.

Data Analysis

Data analysis is an ongoing process that starts with the phase of proposal development and stops temporarily at the time the dissertation is completed. It is not a linear process as one might assume by reading the results and conclusion chapters. It has a more cyclical nature and in the literature Glaser and Strauss (1967) and Lincoln and Guba (1985) talk about constant comparative methods of data analysis. They identify several stages of this process from coding and rough categorizing, to refining and simplifying the categories and articulating the emerging patterns.

Data analysis focused around three themes based on the initial research questions. For each of these domains content analysis led to identifying, coding and categorizing the patterns in the data using inductive process. During the process of data analysis I used matrices, tables, and summaries to compress the data and display them in workable units that allow for generating conclusions. Several techniques and steps were used in the process of data analysis. Interviews were first transcribed and divided into initial themes or domains. As transcripts were reread, these domains were refined and the data was coded or assigned labels for units of meaning. I started with descriptive codes noticing and refining categories related to the content, and later on moved to inferential or pattern codes (Miles and Huberman, 1994) that identify overarching themes and patterns.

Data were systematically reexamined as I developed categories in order to confirm that categories are internally consistent but distinct from each other (Marshall & Rossman 1995). Both indigenous as well as analyst constructed typologies (Marshall & Rossman 1995) were used, or in other words the categories derived from participants' language, as well as from theoretical or empirical constructs. I searched for examples that did not fit into existing categories. I was also engaged in peer debriefing sessions during the process of data collection and analysis where I discussed the emerging findings and questions with a colleague. The research questions, as well as emerging explanations, were tested against the data through the search for disconfirming evidence, and alternative explanations. The last phase of data analysis consisted of synthesizing the findings and writing the conclusions.

On the one hand, categories and themes related to participants' images about teaching, and their personal as well as educational identities, emerged from the data. On the other hand, categories for describing preservice teachers' epistemological positions follow the framework of "ways of knowing" (Belenky at al.,1986). The part of the analysis related to epistemology was a combination of across case and case oriented approach (Miles &

Huberman, 1994), or in other words the comparison of "ways of knowing" among participants as well as the analysis of "ways of knowing" individuals applied to different domains of knowledge. Epistemological data were first analyzed using a cross-case method. Two independent researchers assessed participants' dominant epistemological positions using the framework provided by Belenky et al. (1986). The rate of agreement between the researchers was 80%. Within the same theoretical framework, the variations in each respondent's "ways of knowing" in different areas of knowledge were examined. As the last stage in this part of the analysis, three participants who represented different epistemological positions were chosen and comprehensive descriptions or profiles of their cases were assembled . The profiles served as illustrations of idiosyncratic personal experiences of the initial stage of teacher socialization. The life history format was used for the profiles. Preservice teachers' accounts of their own lives were presented chronologically, uncovering the personal "contradictory process of becoming" (Britzman 1991, p. 62). The assumption behind this was that interviews "signify the life of one unrepeatable public moment among the many more private, elusive, chaotic, and unaccounted moments that constitute the rhythms of life" (Britzman 1991, p. 61). The profiles are scaffolded with examples of participants' perspectives on teaching, and framed with my interpretations of persons' voices.

Limitations of the Study

A limitation inherent in qualitative methodology is the researcher's bias and subjectivity. Despite my intention to be open to the perceptual worlds and attitudes of participants, I also carried to this research a set of values related to empowering teachers, and these values apart from contributing to the choice of the research questions also slanted my interpretations of participants' voices. I was interested in understanding how a particular preservice teacher thought about the process of becoming a teacher. Therefore my

questions were structured to invite openness about doubts and deliberations, not to be judgmental. But I am aware that my ideas as well as Maria's, Peggy's, or Jenny's words construct their profiles, which therefore stem from two different narrators — the one who is telling her story and the one who interprets it (Britzman 1991). My background and beliefs about teaching are articulated in a separate section of this chapter.

The sample consisted of fifteen entering preservice teachers in an Early Childhood Program of a large state university. This is a small sample chosen purposefully for the richness of information it was likely to yield. I recognize that this sample was not representative of entering preservice teachers in other education programs (elementary, secondary) at the same university or at other colleges or universities. Nevertheless, the value of this sample is that it provided rich descriptive data about particular students entering early childhood education.

The Program is located at the large state university in Northeastern U.S. and most participants are from a limited geographic area, and also from a narrow socioeconomic range of backgrounds. In addition to socioeconomic and geographic limitations, those preservice teachers who agreed to be interviewed were likely to be more articulate about teaching and more reflective than those who chose not to participate. The process of approaching applicants by clarifying the purpose of the study and possible benefits for participants, probably contributed to selection of preservice teachers with certain predisposition towards reflection. Therefore, the whole sample represented preservice teachers who were willing to explore own life histories and conceptions of teaching.

Data were collected at the time period in which participants started their formal teacher education. Their images of teaching and the self might be quite different at the time

of the completion of the Program and although some data was collected to document that change, it is not included in this dissertation.

Therefore any generalization of research findings to different populations, programs, or phases in teacher professional development should be made cautiously.

Trustworthiness

The issues of truth value of research are defined unequivocally in quantitative research. On the contrary, the literature about qualitative research still struggles with defining the concepts that are meaningful in qualitative research not based on the positivist notions of objectivity, reliability, and validity. Miles and Huberman (1994) elaborate on five types of standards for the quality of conclusions: confirmability, dependability, credibility, transferability, and action orientation. In this section all five of these standards are reviewed in regard to this study.

Confirmability is analogous to objectivity in quantitative research. It means that the findings reflect the subjects and the conditions of inquiry, rather than researcher's biases. In order to enhance the confirmability of this study several procedures were followed:

1. The study's procedures and methods are described in details. This detailed record can be followed as an "audit trail". A journal of design decisions and rationales behind them was kept to facilitate this process.
2. The sequence of data collection and analysis is explicitly noted.
3. The researcher is explicit about personal assumptions, values, and biases.
4. The study data are retained in a well organized and retrievable form to be available for reanalysis by others if needed (Marshall & Rossman 1989).
5. Inter-rater reliability was established for participants' epistemological positions.

Dependability refers to quality control (Miles & Huberman, 1994) or "consistency of the results obtained from the data. It is concerned with the extent to which the study would yield the same findings if it were conducted with the same participants in the same context" (Liu, 1996). In order to assess the dependability of the study a reader has to pay attention to:

1. The clarity of research questions and the congruence of study design with these questions.
2. The explicit description of the researcher's role and status within the research site.
3. Several forms of peer review that were used. They consisted of discussions of findings with: participants, doctoral students (in doctoral seminar and peer debriefers), committee members and other faculty members in the Program, and the mixed audience at several conference presentations.

The third aspect of trustworthiness refers to credibility. Credibility refers to whether the findings of the study make sense both to the readers and to participants. Several procedures were employed to improve the credibility of the study:

1. Context-rich "thick" descriptions are provided in the results chapter.
2. Data collected through different methods were triangulated. It refers to data gathered through in-depth interviews, personal statements, and questionnaires.
3. Some areas of uncertainty are identified.

The fourth component of trustworhiness is transferability or generalizability of conclusions to other contexts. In order to enhance transferability these steps were followed:

1. The limiting effects of sample selection and setting are articulated in the previous section of this chapter.
2. The sampling was diverse to encourage broader applicability.

3. The replication efforts in other setting can be mounted easily since the steps in data collection and analysis are listed in the methodology chapter and data collection instruments are included in the appendices.

4. The conclusion section suggests the settings where findings could be tested further, and the scope of reasonable generalization from the study.

5. The consistency of particular findings with experiences of other teacher educators was checked during several paper presentations at the teacher education conferences.

The last component related to trustworthiness is the action orientation. Critical theorists (Giroux & McLaren 1986, McLaren 1994) discuss the importance of research that results in emancipatory action or empowerment that in this case addresses the inequities of current system of educating future teachers. This area also includes ethical questions related to this research. As a reader of this dissertations one has to make one's own assessment regarding these questions:

1. Does the study stimulate "working hypotheses" as guidance for future changes in teacher education?

2. What is the range of usable knowledge offered in the study and is it only consciousness raising or does it also include policy advice or/and theory to guide action?

3. Who benefits and who may be harmed buy this research?

As a researcher, I am particularly concerned with both short- and long-term effects of this research on the participants. Did it have any empowering effect on their lives giving them increased ability to deal with their professional situations and concerns, as well as increased knowledge about themselves? I am also interested whether this dissertation will have any impact on the Program that served as the setting, or on any other program of teacher education.

The Role of the Researcher

The researcher is the main instrument in qualitative inquiry. Therefore the role of the researcher is a significant part of the research design. Contrary to quantitative inquiry, which assumes that the researcher is an objective observer of reality, qualitative research acknowledges the inevitable subjectivity of the researcher and instead of suppressing it, strives to make researcher's perspectives or biases explicit.

I approach this study with certain beliefs, hopes and assumptions, and my views on teacher education are mediated by an idiosyncratic personal history, and my social group memberships, in the specific historical and cultural contexts.

I was born and raised in a socialist country in a middle class family. My parents were both first generation college graduates. The European cultural sphere was reflected in my education, which was highly structured, authoritative, and based on high academic standards. My social class group was a privileged one allowing me the possibility to choose and pursue the education I wanted and to have relative financial security. My gender affected my sense of self as a learner, despite the fact that I was considered successful in a male dominated field - physics, and was not socialized by the family for typical female roles. Nevertheless, I believe that the cultural myths present an overlay over the active role of the individual's own development, as well as over the family upbringing.

My professional interests focused on math and physics, and they changed to early childhood education in my late twenties. In my graduate education I was interested in cognitive development and creativity. I want to acknowledge that I had exceptional teachers and mentors throughout life both within and outside the formal educational settings. My educational background was in the quantitative approaches to inquiry, but as I

acknowledged the limitations of the positivist paradigm I decided to study preservice teachers' current construction of reality based on their personal and collective histories, as well as on their own interpretation of these histories.

My specific focus on entering preservice teachers stems out of my interest in teaching courses for that student population. The decision to pursue this study is linked to my vision of recognizing future teachers' knowledge and understanding of teaching through their own schooling, as well as expanding that recognition and empowerment to their teacher identity.

My relationship with participants was multidimensional. I taught a section of Child Development to three of these students one or two semesters prior to the interviews. Those three knew and probably perceived me as a lecturer. Participants all knew that I was a graduate student in the Program. Most interviews were conducted in my office in the Early Childhood Program, that was another indication of my status there. Interviews with one student were held in her home that gave me an opportunity to learn more about her social environment, and interviews with another participant were conducted in my home since it was more convenient and allowed the possibility for baby-sitting. I felt a little bit uncomfortable with the gap between her and my economic resources at that time, that was more obvious while she was in my home.

I also co-taught a Reflective Seminar at the time when two of these students carried out their final student teaching practicum. I was a supervisor for student teachers and in that role helped to facilitate the Reflective Seminar several other semesters while some other participants did their student teaching. I chose not to be the supervisor to any student who participated in the study since I did not want to mix the roles of the supervisor and the researcher. Participants knew me for two and a half years and in that time different levels of

friendship were developed with some of them. They were all invited to a social gathering in my home at the time when all the interviews were completed, and to a presentation of some findings at the seminar in the Program. The first event was designed to acknowledge their contribution to the research and to thank them for doing it. While only two participants showed up at the first occasion, none of them came to the second event. The poor response to both events might be interpreted as either lack of time and/or interest in further socializing and/or the unwillingness to be recognized by peers and professors as one of the participants in the study. However, when they were asked if they would be willing to participate in the third interview that would deal with the changes they went through during the course of their preservice teacher education, at the time they were finishing their education in the Program, they all responded positively. Unfortunately, my other time commitments at that period allowed me to conduct only one of these interviews.

Ethical Considerations

I understand that in conducting this research I asked very personal questions, and had access to sensitive information about participants. In my pursuit to help them reveal their thoughts I had an obligation to protect their privacy, and to help them deal with feelings that might emerge from recollections and reconstruction of particular life episodes. Participants were asked to sign an informed consent form which guaranteed their right to discontinue their participation at any point. They had the opportunity to review the documents resulting from the study and to censor any information they wanted to exclude from the final report. The anonymity of participants was protected by changing the names and some identifying references. At the time this dissertation was completed, all the participants except for one graduated from the program they were enrolled in, therefore

minimizing the effects of their involvement in the study on their grades or standing within the Program, even if their professors could recognize them.

I encountered a number of other ethical questions as I was designing the study. The most important one was how to design the study to ensure that participants benefit from their efforts to share their thoughts and visions with me. I tried to design a study that would have both immediate and long term positive effects for participants, not only positive effects for me as the researcher. I am aware that how one defines "positive" is a matter of values and preferences, and I find the reciprocity issue (Seidman 1991) important and troublesome. As an immediate benefit I anticipated participants might become more aware and articulate about their beliefs about teaching. As a long term benefit I hope this study might contribute to a change in teacher education curricula that would take more account of discovering, articulating, validating, and questioning students' perspectives and beliefs.

Ethnographic research is "predicated upon not simply being there but with establishing relationships with people" (Britzman 1991, p. 15). It brings about more ethical dilemmas as one strives to balance the fine line between being a researcher, a therapist, or a friend. In the pilot study, I deliberated over how much to tell the participants about the research, without risking that they will change their responses in order to fit into my framework.

Another dilemma is linked to an unequal power relationship between a researcher and a participant. In most social studies research, the researcher is an outsider who defines the problem, chooses the subjects, measures or assess the topic/issue/problem and draws conclusions that somebody else should then implement. In this study it was clear that participants knew more than I did about their own life history and current views about teaching, which were the two foci of the study, but I was in charge of the final analysis and

the report writing. In the future I would like to conduct action research that goes further in empowering participants to define their own problems as topics of inquiry, and to become researchers and "conclusion drawers" in order to change their conditions.

Summary

This study of entering preservice teachers' images of teaching and the self was conducted as a phenomenological inquiry using qualitative methods of data collection and analysis. The main instrument for data collection were two in-depth interviews in the beginning stage of the Teacher Education Program. Fifteen preservice teachers participated in the study. The setting was an Early Childhood Education Program at a large State University in the Eastern U.S.

All interviews were fully transcribed and analyzed by the researcher. The data were coded, using descriptive codes in the initial phase of data analysis, and inferential or pattern codes later. Data analysis and presentation is organized based on three themes defined by research questions.

A number of procedures were followed to enhance the trustworthiness of this research. Several ethical questions pertinent to the study were reviewed and analyzed. My identities as a female, White, middle class, feminist, heterosexual, non-disabled, Croatian-American, mother, teacher, and graduate student in my forties, inevitably influenced the research design, analysis, and conclusions. Hopefully by making all these identities explicit and by articulating my beliefs, the reader will have the chance to assess both my biases and the worth of this study for herself/himself.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

This study seeks to describe and interpret preservice teachers' notions of themselves, at the time they begin formal teacher preparation, as well as their ideas about teaching and their images of themselves as future teachers. This chapter contains the description and discussion of findings organized according to the three themes that reflect the research questions: (1) images of the self, (2) images of teachers and teaching, and (3) towards the image of self as a teacher. The organizing principle in the presentation of findings include both the preexisting components as in the first theme, and the analysis induced components as in the second and third theme. Under each component of a theme, the results are first presented descriptively and are then interpreted in the summary section.

Theme 1: Images of the Self

The presentation of findings related to the images of the self is organized into four main components that were reflected in the interview questions: (a) personal identity or the self as an individual, (b) social identity or the self as a member of certain social groups, (c) epistemology or the self as a knower, and (d) educational identity or the self as a student in school. Within each of these components, the themes and patterns are noted and discussed, and all four components are believed to contribute to the complex notions of the self for students entering preservice teacher education. Although the components of epistemology

and educational identity overlap to a degree, they are perceived as helpful tools in tapping into this multifaceted domain of self through different venues.

Personal Identity

A number of interview questions focused on personal identity (Questions 1, 2, 4, 5, 8, 9, 10, 11, 12, 16; Appendix E). Participants were asked to reflect on their current sense of identity and on the process of identity formation, discuss the factors that influenced them in a significant way, and identify the areas of their expertise. As their responses were analyzed, a number of common themes emerged from their answers.

Self as Defined through Relationships

The most striking theme is the importance of the relational component of identity for preservice teachers. Respondents talk about themselves, describing their abilities, traits and preoccupation in relation to others. They use a variety of attributes like "caring", "friendly", "social", "understanding", "compassionate", and "nurturing" to describe themselves. Their interests, skills and areas of knowledge are often related to the interpersonal domain. Here are some illustrative examples:

- Emily: "I am a mother. I am a good friend to a lot of people. I am a good listener, a good audience. Not an actor, I am not good at that. ... I like the company of children."
- Diane: "I get along with classmates. ... I think I can talk to people pretty well. ... And I think I am caring too."
- Robin: "I think of myself as other people see me. My friends always come to me when they have problems. I don't mind because I like helping people. ... I think overall I am a good person and a good friend."

Lyons (1983/88) used the term *connected self* to describe this way of thinking about self in relationships as responding to other's needs, as opposed to *separate self* characterized by concern for reciprocity and fairness in relationships. For the majority of participants (12 out of 15) the connected self reasoning prevails over the separate-self mode.

Overall, most respondents describe themselves as "connected" in relation to others. They describe themselves as sensitive, understanding, and motivated to help others. They are preoccupied with doing good for the welfare of other people. Erin is exemplary in illustrating this way of reasoning: "I think I am a caring person. I like to take care of people. Everybody on my floor says that I am one of the nicest people around. I feel I am friendly. I don't want to use people. I try to act the way that others would like me to act. I try to be a good person."

For three participants, both connected and separate self reasoning modes are demonstrated in their responses. Leah, for example, socializes with people for her own benefit as well as for the well-being of others: "A lot of people come to me and they just want to talk to me. Whether they are looking for an answer or whether they are trying to make sense of what they are thinking. I sit and listen and I love to listen to people's problems. I love to be there for people because I find it interesting how people react to a situation. I might react very differently and that interests me."

Self as Defined through Competencies

The following findings are deduced from the range of abilities participants used as self descriptors and the competencies they identified in the specific domains of their expertise (Questions 8, 9, 10, 11, 16; Appendix E).

Most respondents (13 out of 15) comment on their social competencies in their descriptions of themselves. They characterize themselves as good friends/persons, good at: socializing, listening, caring, mothering, relationships, interpersonal communication, or "good with children". For example, when asked how she would describe herself to herself, Heidy answers: "I think I am very friendly. I am not afraid to talk to people even if I am by myself and I am on the bus or something. I am not afraid to just talk to somebody. I am very social. And usually I am happy."

Artistic competencies are noted less frequently (by 6 out of 15 participants). While some respondents refer to their competencies in arts in general, others specify a particular artistic domain they are good at. For example Maria views herself as good at playing piano, and Jenny talks about her "good literary sensitivities" that she uses for creative writing.

One in three respondents refers to her/his cognitive competencies, mentioning, for example, "thoughtfulness", "being a logical thinker", and "keeping an open mind". Others note their physical competencies and consider themselves good at a specific sport or at sports in general.

A salient theme is that participants often refrain from claiming that they are good at a domain they are interested in.

- Erin's quote is an illustrative example: "I am a swimming instructor. So I could swim. I mean I am not a great swimmer but I could swim."
- Leah's statement about her sports competencies is also very tentative: "I have a love for volleyball. Volleyball and hockey are my two favorite sports. Hockey, I am not good at because the guys are always so much better than me. But I don't know why but I just love volleyball. I love watching it, I love everything about it. I think I am good at it."

Lack of self-confidence in one's own competencies applies to other areas beyond sports. It is also noticeable that less than half of participants mention any cognitive competencies or competencies related to academic subject areas as self descriptors.

For some participants it is difficult to identify any area of expertise or any particular competency they have.

- Erin:[Interview question: "Everybody is good at something. What would you say is the area you are good at?"] "It is hard to me to say that I am good at something because I always feel there are people up there that are better. I am not that (good). There is nothing that I did that's the stuff where I was better than other people. It happened to cheer leaders. I was one through high school. ... I am relatively good at listening at people. I am not the best at giving advice but I am always willing to listen to people."
- When Maria could not identify an area of expertise she subtly changes her line of thinking into describing a domain she wishes to be competent about: ["What are the things you are really good at?"] "I am good at, (pause)... I would like to paint. I could see myself painting but I can't. Like when I start doing it, physically I can't. I can imagine myself painting in my mind, but I can't. Or sometimes when I want to explain something to somebody I could imagine myself painting the thing that I try to describe. But if you give me a picture or something, I could enlarge it. But I am sure everybody can do that. I would like to be able to paint."

Significant Influences and the Process of Identity Formation

Several patterns stand out in answering questions about the differences between their previous and current sense of self (questions 12, 16; Appendix E). Although there is no universal influence that is perceived as significant to each participant's present sense of identity, the most commonly mentioned factor that contributes to their current identity is the role of significant others.

- For example Jenny attributes her current sense of self to a friend who "is the first person that I ever felt has a total faith in me. Total faith in me not for writing or for getting the good grades like the rest of my family, but just that whatever I decided to pursue I am going to be good at."
- Similarly, Dick is influenced by his grandmother: "My grandmother was probably the most important person in my whole life. She set me up for life. A lot of my values and morals were instilled by her. She taught me so many things through my whole life. And through the turmoil of my parents' divorce she was the only person who ever really believed in me. "
- The most important influence for Helen is her former boyfriend: "One of the best influences and the worst is my ex-fiancee. I met him in my freshman year in college. He is so knowledgeable about the things that I want to be knowledgeable about, like religion, psychology. He worked for a newspaper, college newspaper. When I started going out with him he used to be a columnist. He has a way to spell out about anything and he knows it. He was such a big influence on my life."

Sports emerge as another major influence for several participants. Diane explains the meaning of crew in her life: "(Crew is) getting up at five o'clock every morning and going down to the river and rowing and running. It's just incredible. You think you can't do things and then when you're in the water and you are pushing yourself and you feel like you're going to die, you feel sick. And then you can do anything. ... In high school I was really into sports. But I never really pushed myself. When I came to college and joined the crew, I was nervous that I wasn't really going to be able to keep my grades up. Sometimes crew almost gave me a sense of organization. It's just so amazing. I push myself to the limits that I don't really think I can. And then I want to go back for more. It is weird. It's just nice to be like a fighter. And I know nothing can beat me, nothing."

Others also note that sports help them to achieve psychological stability and organize their lives, and that through sports they learn to "be with themselves".

- Dick: "I think the best thing I can tell you is that I am a runner. And I am a runner anywhere. In my head I am a runner. I have often found myself running away from problems. ... If you understand runners than you can understand being alone sometimes, but certainly above the company of other people. I have no problems going down on a 15 mile road to find myself. But learning to be all alone and enjoying it is important. If you can not spend a time alone by yourself than I don't think you can spend time with others."
- Heidy: " I wake up early and I run. That's the time when I am alone. It's the time for myself, I do what I really want to do. Something that you definitely do for yourself. Everything else I always do for other people."

Sports are particularly important for younger participants in their late teens and early twenties, while sports are not mentioned by older respondents.

Another important influence in their current self of identity for few respondents is their college experience.

- Erin: [Question: "What led to the changes in how you see yourself?"] "College. The first semester in college everybody knew me as a girl who was all the time in her room studying. The only time I would go out was to go to the bathroom, or to go to class. And then in the second semester I realized that I have to meet people. ... Because I didn't know anybody and I didn't have that much of a social life. So that semester I moved myself to go out and meet people. I was hanging out and I started having a good time. It just made me open up a lot more. It made me become a lot more self confident. More fun with everything. I think it made me a better person."
- Heidy: "I was very naive coming into this college. Coming from a small town and from a family where nothing ever went wrong. My grandfather died and that was probably

the worst thing that happened. Being in college I learned a lot about myself. Just from meeting different people that come from entirely different experiences. I learned how to interact with them that I didn't know before. I remember being frustrated. Last night, it was three o'clock in the morning and some people were screaming. I can't see how can they be so inconsiderate. For me it was so unbelievable. But I learned not to be shocked."

Reading does not have a significant role in influencing who they are for a majority of respondents. Several participants completely disregard books and reading. Erin notes that she "never wanted to read books", while Peggy comments that "books were not important." Leah is even more adamant: "I am not a reader, I never read much. I hate reading because throughout school I had to read." However, there are a couple of exceptions, like Jill: "I love reading ... I always adored reading. And I think the most positive thing as I get further insight in myself are novels. Probably D.H. Lawrence is my favorite author but I try to read as many different authors as I can."

The finding from previous studies (Zimpher, 1989) that preservice teachers had limited traveling experiences beyond the narrow vicinity of their communities holds true for the majority of this sample. Travel is an important factor in identity formation only for a few participants. Diane is influenced by a very different world she discovered while spending her senior year of high school in another state; Helen is fascinated with a different culture and also understands her own family culture/tradition much better after tracing her roots in Europe; while Jill developed sensitivity to what it meant to be a member of a racial minority as she traveled to Africa.

The direction of the process of identity development, according to participants' voices, follows a universal trend. Thirteen out of fifteen respondents confirm a pattern of

change, from feeling insecure towards a more confident sense of self characterized by higher self-esteem. They mention that they are becoming "more self confident", "a little stronger and more stable than before", or that they "developed their own voice". Some examples of this include:

- Emily: "Although I still have more ground to cover, I feel I am much more confident about my abilities than I used to be. I am not worried about things that other people have to worry about like being out in the world. I can find a job, I can make a living, I can be a good parent. Those were the things I used to worry about, whether I would be able to do all the things that I am doing. ... And I am more relaxed about things. I know I don't have to do everything and that I can't do everything and that is OK."
- Theresa: "I think I've come a long way. I used to worry a lot. I was overweight when I was in high school. I kind of worried how I look like and who I was. And I didn't have that confidence. ... Right now I am beginning to feel more confident. I feel I can make a difference. I think it's not so much what people think of you, it's more how you view yourself, and the confidence you gain. And that's been helping me a lot."
- Dick: "I cannot help but notice the difference, because I like me, I am comfortable with me, and I am me, and in the past I lived for other people's expectations that I did not agree with. Through that I had a very low self-esteem. I am tired of experiencing that. ... I am definitely different (than I was) and I expect to be different next year."

Only two participants do not follow this pattern. One notices no change in the way she perceived herself claiming that she is "the same person as she has always been," while the other one experiences her present identity as "all shaky" compared to a more stable and secure sense of self she experienced in the past.

Summary

Entering preservice teachers define their personal identities through relationships and competencies. The relational component of identity is important for all participants and 80% of respondents think of themselves in relationships primarily as responding to others' needs. Among the competencies, the ones recognized most are social competencies (87%), artistic competencies (40%), cognitive competencies (33%) and physical competencies (27%). It seems that most respondents are not used to think of themselves as capable although they eventually managed to identify some of their competencies. This perceived lack of competencies, particularly lack of academic competencies, might have a profound effect on their present perception of themselves as well as on their future role as teachers.

Significant others, sports, and college experience are three major factors that influenced participants' current sense of identity. Individuals who had the most influence on these entering preservice teachers are the ones who had faith in them and confidence that they are capable to do whatever they wanted to accomplish. It could be important for teacher educators to notice this fact if they aspire to influence future teachers in any way. Sports are important for participants in their late teens and early twenties. The overall pattern in the process of identity formation mentioned by 87% of respondents is that of moving from a sense of insecurity towards a more secure sense of self. This pattern is confirmed not only for individuals at the transition from adolescence to young adulthood but also for the two women in this sample who are in their late thirties and early forties.

Another finding relevant for their future teaching role is the lack of interest or dismissal of importance of reading. This finding is significant because as preschool or elementary school teachers they would introduce children to reading and developing life-long reading habits. How would they do it if they themselves do not have any interest or affinity towards reading?

Social Identity

The following section contains the discussion of the perceived effects of gender, race, ethnicity, and social class on identity formation (Questions 13, 14, 15; Appendix E).

Gender

All female participants except for one are aware that gender plays an important role in their identity. For example, when asked about the meaning of being a woman and how it affects her sense of self, Emily comments: "It's such a difference. When I was in college and in my twenties I was very much a feminist thinker. I noticed all the injustices and I was very outraged by them. I have mellowed. I want things to be better for my daughters. I want them to be able to participate more equally in life. I love being a woman now. I love other women. And I think that aside from my husband I just don't have many more men friends any more, that's just what happened. When I can read I love to read women authors because I think if I can read one thing I would rather narrow it down. I love to read about other women's lives."

However, the only man in the sample denies the importance of gender for his identity and answers the question of how gender affects his identity this way: "A man or a woman it means you are a person, there is no difference. There is no such thing except for physiological differences. We are all given gifts from either God or something, the strange emotions that I have, everything. To me being a man is just being a person. It 's very simple."

The women's perception of their gender is predominantly based on the importance of motherhood for them personally, regardless of whether they already have children or not.

Social Identity

The following section contains the discussion of the perceived effects of gender, race, ethnicity, and social class on identity formation (Questions 13, 14, 15; Appendix E).

Gender

All female participants except for one are aware that gender plays an important role in their identity. For example, when asked about the meaning of being a woman and how it affects her sense of self, Emily comments: "It's such a difference. When I was in college and in my twenties I was very much a feminist thinker. I noticed all the injustices and I was very outraged by them. I have mellowed. I want things to be better for my daughters. I want them to be able to participate more equally in life. I love being a woman now. I love other women. And I think that aside from my husband I just don't have many more men friends any more, that's just what happened. When I can read I love to read women authors because I think if I can read one thing I would rather narrow it down. I love to read about other women's lives."

However, the only man in the sample denies the importance of gender for his identity and answers the question of how gender affects his identity this way: "A man or a woman it means you are a person, there is no difference. There is no such thing except for physiological differences. We are all given gifts from either God or something, the strange emotions that I have, everything. To me being a man is just being a person. It 's very simple."

The women's perception of their gender is predominantly based on the importance of motherhood for them personally, regardless of whether they already have children or not.

- Jenny: "The most important thing has always been coming to that point that I can be a really good parent. I can't wait to be a mother. I've dreamed about that ever since I was a little girl. That's the one big dream that I have: having my own kids and being able to provide for them financially and emotionally really well. More emotionally than financially."
- Carrie: "Being a woman mostly makes me feel maternal. It also makes me feel strong but that has to do with maternal too because I didn't realize how strong I was before I had my first baby. Then I realized that took a lot physically and mentally."

Some traditionally feminine characteristics, like attention to physical appearance, expressing emotions, and caring for others were prominent in respondents' accounts of their womanhood.

- For example, Leah comments: "I love the fact that I can be seen as feminine and pretty and treated with class while guys don't get that. Guys don't get that girls take them out for dinner and buy them roses. ... If actually I could pick I think I would want to be a girl. Some people say: "I wish I were a guy, guys don't have to be pretty, they don't have to wear make up." I like that stuff."

Stereotypical attitudes about gender roles are expressed by a number of participants who consider teaching as an occupation that would prepare them well for motherhood.

- Theresa comments: "My dream has always been to stay home and be a housewife and raise the children. I think the woman is pretty important to the family. She teaches children, and I think women have certain wisdom that men don't."
- Leah expresses ambivalence about her professional career. Although she glorifies the new freedom women have, ironically she opts for the traditional feminine role: "I love the fact that I can be independent because I live in the nineties and I am the nineties woman, and I can have my career and do whatever the heck I want, because the society

says you can do whatever you want. I would love to be able to marry someone who would be able to earn enough money that I can stay home and be a housewife. Be a mom, be a stay-home mom with kids."

Descriptions of being a woman are also characterized by contradictory statements of being less restricted and having more options than men in terms of expression of personality and life choices, but being more oppressed at the same time.

- Jill says: "Being a woman, it's being very free in certain ways and oppressed in other ways. Free means being able to give the emotions more and maybe being able to explore art and literature."
- Leah reports: "I love the fact that being a woman means that you can still be in a career, you have more flexibility today. You can be in a stereotypical man's job or you can be a stereotypical woman. But men, yes they can stay home but if you see a woman bringing home the money and the man is staying home, you would think: 'Is he lazy?' I think it is harder for men. But for women there is more sexual harassment, more risks. ... Most guys would not have a problem walking across campus at twelve o'clock at night while there is no way I would do it. Because it is dangerous and that bothers me. I am scared that somebody can attack me, mug me, rape me, whatever."
- Julia describes: "I like being a woman. I don't think I would want to be a man. But on the other side I feel a discrimination sometimes. Even the other night that I was working, I work in a bakery. And an old man came in, he could have been my father, and he was asking me questions he shouldn't be asking me. And I just get sick of things like that. I am earning a living so that I can support myself and then someone comes and asks me all these questions that he should not ask me while I am at work. And they are the customers so I cannot really say: 'Get out of here!'"

One theme emerging from the data is that whatever discrimination or abuse these young women experienced, it highlighted their awareness of gender as a significant factor in identity formation. Some participants experienced different treatment in the family compared to their brothers who were, for example, sent to private schools, allowed to play sports of their choice, or got their driver's licenses earlier. Four participants mention the incidents of abuse talking about their sense of self as women, while some others mention how they changed their habits or behavior out of fear of abuse, although no interview question explicitly addressed abuse.

- Helen, for example, considers that her identity is significantly shaped by a rape incident she experienced as a child: "When I was younger, when I was about seven, I was raped by a cousin. And for years and years when bringing it up I did not talk about that. Like if I have forgotten it. And I remember thinking that this has not affected me at all. But when I was a freshman in college I had a very close relationship and basically I had to face up to that. I have spent so much time thinking I have so much anxiety... Everything that was slightly sexual bothered me and I could not understand why. Why am I like that? What is going on? ... I was thinking to myself that I was OK because this what happened when I was a child did not affect me. And that was before I found out as a senior/later on in college that it was not true. ... According to my mom now, ... I was disorganized sort of in a hippie way (as a child). And after that (incident), she could pretty much pin it down to the week of that when we talked about it, I became incredibly organized. Everything had to be in its place. I was putting things away in the same position as before. All of the sudden I got really rigid. ... This was probably after this thing happened, I remember really worrying when we were going somewhere and I did not know where we were. And still if I don't know where I am I get really nervous. ... I am a really controlling person. For me to be comfortable, things have to be the way I put them or the way I want them. Maybe I was like that before, but I think I got a lot more like that after being raped."

Race and Ethnicity

As opposed to gender, the awareness of importance of race and ethnicity in identity formation is expressed in vague terms. The sample of preservice teachers consisted of one Latina and fourteen White students, hence all participants except for one belonged to the racially dominant group.

Six out of fifteen respondents either never thought about the effects of race on their identity or they deny the importance of race on identity formation. Here are some examples.

- Erin: ["What does being white mean to you and how is it related to your sense of self?"] "I never really thought of it. I think that today things are a lot more equal so it makes me not worry about it that much. "
- Theresa's answer to the same question is similar to how Dick talks when he speaks about gender: " I don't think it (race) affects who I am. I am trying to be myself as a person and I come across people who differ in race I just treat them as any other person."

Several other participants acknowledge that they have some privileges because of their race, but they have a vague notion about it. Helen comments: "It shouldn't make a difference what color you are but it really does. I don't know, I think maybe it shuts some doors for you that I really wish were open."

Those who express their frustration with "reverse racism" they experienced as Whites, are more articulate about how it affected them. Heidy, for example, comments: "Sometimes on this campus I feel like you can't have a dance unless you are a minority. Like the other weekend it was Latin American night and I would love to go but I would just feel so strange. I just really feel uncomfortable. And I live in a dorm where there are a lot

of African-American people. And sometimes they just want to hang out with each other. And they don't want you to hang out with them. ... I tried with these girls. And I can understand that they kind of get along. I get really nervous too because they are always in a group. I never see one of them alone to start a conversation."

Only a few respondents have reexamined their racial attitudes, like Jenny: "In the South I thought so much more progressively than my peers that I considered I am not a racist. But now that I am here, I am more able to recognize exactly which of my perceptions are racist and what kind of reactions I have to people that are just ingrained to me because of the way I was brought up. So I am at the point where I can kind of recognize these and work on them now."

A theme related to racial discrimination is that many participants equated it with hostile acts of individuals against people of other races, i.e., it is viewed as oppressive individual behavior, but they do not think of oppressive racial attitudes, or discrimination ingrained in the social institutions. For example, Peggy comments: "I am not really in contact with many different races. But I am not prejudiced against them either, or I don't think I am. I would never not talk to someone or anything ridiculous like that."

Entering preservice teachers in this sample have little awareness of what it means for them personally to belong to the racially dominant group. Some, like Leah, are explicit that the lack of racial identity is the "price" of being White: "Sometimes when I look at Asian women or African-American women, they are just stunning. It's their culture and I don't have a culture. I don't have any kind of ethnicity because I am a mix of about seven different European countries in terms of my heritage. I am almost jealous when I see my friends on certain occasions dressing up in their traditional wear. Or African-American women getting their hair done so they look traditional and they have all kinds of wonderful

people to celebrate. I don't have it. But on the other hand I am lucky because I don't have to worry about putting up with anything. I don't have to worry about being discriminated against, I don't have to worry about racial remarks, I don't have to worry about people saying: 'She is white'."

The only member of an oppressed racial group in this sample distanced herself from her own group and blamed Latinos for being poor while she tried to act as Whites and to internalize the "White values". Those are the typical characteristics of active acceptance stage of racial identity development (Hardiman-Jackson, 1992). "People are racist against me, like women would watch when I came in the store if I was going to steal something. ... And it's not their fault. Most Hispanic people are just no good, and they give their kids the gift of welfare. And that's what they did, and they pass it on to the next generation and that is not right. And you have these kids that are 14 years old and they drop out of school in ninth grade and that is not good. Right now if I can live furthest away from Hispanics I am trying to do that. ... And I just can't believe how Hispanics multiply. There are so many of them everywhere. Right now I am trying to identify with Hispanics the least I can. ... I guess I am being racist against my own race. And that's a confusing thing."

Since most participants grew up in racially homogeneous communities and had little experience with people of different racial heritage before college, some acknowledge that they want to learn more about racial issues and particularly about racial discrimination.

Social Class

Entering preservice teachers in this sample define their social class in their childhood and adolescence unanimously as middle class. Being middle class is experienced as a "safe place to be". As an illustration, Diane says: ["Did the fact that you were a middle class child affect your sense of self?"] "It did give me a lot of benefits. I had a lot. I am

not much spoiled. But being middle class and having my parents be middle class, I was raised to be middle class. So now I am at school. I mean I have money but I work so I can get more things. So it is an encouragement."

Leah answers the same question this way: " It 's probably one of the most secure places to be, to be a middle class. ... I never had anything spectacular in terms of my parents' money. But I don't have the hardships of my parents not having money and having to wonder where my next meal is going to come from. It gives me an extreme sense of value. I really value the luxury that I have. ... If I were upper class I think I would not value them, I would expect them. And if I were lower class I would value them so much because I did not have them. I would be disadvantaged."

Several respondents mention that their parents or grandparents started off as poor and that the experience of working hard to get to the middle class is still alive in their families (Julia, Helen).

Three participants describe their current social class as lower than middle class. All three of them are paying their way through college without the support of their families.

- Maria: "Right now I am poor. I am on welfare. It gives me lot of stress. I came out of my apartment because they raised the rent, so 100% of my income would go just on rent. And it's awful to be poor. It's not that I need to buy a new pair of pants. I don't need them, it's not like that. But things that normal girls should do like they go to the movie once in a while, they go out without worrying that they can not afford it, things like that you know. I don't care about money, I just wish that once in a while I could have a good time."

- Dick: "I got kicked out of my house essentially and I am free. I am no longer under my parents but I am under tremendous financial stress. I was working about 30 hours a week."

Summary

Out of fourteen women in the sample, eleven are on their way to become the first generation of female 4-year-college graduates in their families. They hope for an economically more secure life compared to that experienced by their parents, as they start their career.

This sample is extremely homogeneous in relation to social groups. This homogeneity is representative of the population of entering preservice teachers in this country. In this sample, the awareness of the effects of social group membership on identity formation is enhanced for certain target groups. Being a woman is defined in terms of motherhood and traditional feminine characteristics on one hand, and at the same time as less restricted gender, having a wider range of occupational choices. The experience of middle class is perceived as a privileged and "secure place" for most participants. In general, social class is not considered a significant factor in identity formation. While respondents could clearly articulate the meaning and importance of gender for their present identity, they have a less developed notion of what it means to be White or middle class and how it affected them. This could be explained as a consequence of the interplay of two factors: growing up in homogeneous communities and having no experience of oppression due to race or class.

Overall, participants expressed little awareness of their own ethnic heritage. On a question about their race and ethnicity in the initial questionnaire less than half mentioned their ethnic origins. Helen is the only one who explicitly mentions ethnicity as a part of her

racial identity: "I have a lot of pride in my family, not for being White, but I am Italian and I am Polish and those are really great things to be. It's me. I have my heritage. And I would hope that people of different colors have pride in their heritage too."

All participants define their social class at the time they were growing up as middle class. Some used subdivisions such as "lower-middle" and "upper-middle". The conception of middle class is based on income level and standard of living compared to other families in the same communities, while only one respondent also included her parents' educational level in her definition of socioeconomic class. According to the demographic questionnaire, middle class is defined rather loosely as having a family income within the range of $20,000 to over $100,000 per year.

Epistemology

One aspect of preservice teachers' sense of self relates to their personal beliefs about sources of knowledge and ways of knowing. For this group of preservice teachers it is of particular importance to assess their assumptions about knowledge as it relates to teaching. The purpose of this section is to describe and interpret participants' epistemological positions. Their assumptions about their understanding of teaching will be compared and contrasted with their beliefs about their sources of knowledge in other areas of their expertise. The "ways of knowing" model (Belenky, Clinchy, Goldberger & Tarule, 1986) is used as a framework for analyzing participants' epistemological orientations.

Respondents are grouped together according to the epistemological perspective in "ways of knowing" model that best describes their overall reasoning about learning and sources of truths in the different domains of knowledge. Preservice teachers' epistemological positions are categorized into four categories: received knowers, subjective

knowers, procedural knowers, and constructive knowers. The scoring was done by two coders and intercoder agreement was 80%, which is appropriate for studies of this nature. The theoretical model provided insights into common ways of thinking within a certain group as well as into differences between the groups, and therefore it was a useful tool for analyzing participants' beliefs about authority, knowledge, and truth.

Received Knowers

Five participants' predominant way of reasoning about their sources of knowledge is the received knowledge mode. In other words they look for the sources of knowledge outside the self, relying mostly on authorities in different fields.

Among all the preservice teachers in this sample, Leah relies most heavily on experts as the sources of knowledge: "If I want to learn something I would not take anybody else's opinion except that of an expert, somebody who obviously knows what they are doing. I need the experts. I think if you start up with the best, you only get the best. Then you make the best out of everything and that is better for you. I have to take the experts' opinion."

Leah seems frustrated with her own uncertainties. The following is her description of how she would decide what is right or true: "If it comes down to either the difference in opinions or there is no right or wrong answer, I would probably just stay confused. I would probably form my own conclusion because I do it all the time based on little bit of everything. What I know, and what they (the experts) say. I would just form some kind of conclusion, because I am a curious person and I would not settle until I came to some conclusion, but it still would not settle with me."

She applies the same criterion of eliminating confusion in her assessment of good teaching: "Good teaching is not if I've said what is important to say, or if I got my objectives

across, but even if I have to spend seven days I would do it until every single person understood, and was comfortable with that. Not if I was saying 'Two plus two is four,' and a student said 'OK, I accept that because you are the teacher and you are telling me and I believe you'. But if he truly understands what I am talking about. It is not only that they hear and comprehend what I am saying, but if they can understand it and they are able to explain it so somebody else. And if he is not confused about it."

For Leah, the truth is unambiguous and she is focused on achieving clarity in her thinking and knowing. While she does not recognize herself as an authority in figuring out the truth, she assumes that as a teacher she needs to have all the answers to be able to convey them to her students.

Theresa also relies on outside authorities as sources of knowledge. When asked how she knows what is right or true, she replies: "I think you have to go by what you believe in, what you think, and what you've learned. For me, it is going by the Bible and God. And you just have to really think about what you were brought up on. And not so much about what other people think. ... I listen to what I have been brought up on, what God says in the Bible, what I think."

Maria: ["How do you know what is right or true?"] "Well I am a good person and I am going to do whatever I feel is right. ... I know myself, that I would know that something is good. I feel if it is a right thing. I just have to do what I feel is right, because I know I am a good person and that I won't hurt anybody. That's my own way, I don't know how other people do it." Although in this quote she used the elements of both received and subjective knowledge, when she talked about teaching she relied solely on the outside sources of knowledge. This is how she talked about sources of knowledge in teaching: "I used to think that the school provide you with a schedule of what you are going to do, but it's not like that.

You have to make it. So I think I'll go to my boyfriend's mom who is a teacher and I would also go to my professor. And for her class I'll make a resource file. I'll get a thick notebook and I am going to put in there all the things that I see in my practica, and apply them to my classroom. Because I am not too creative, I don't even know how to decorate my house."

Diane's reliance on experts is illustrated when she talks about her area of expertise - rowing: "My coach is an Olympic rower. And he is just amazing and he teaches us to row. In that sense he knows more and obviously if you try to figure it out, there is someone who you can rely on." As the other received knowers she feels confused and threatened when the experts disagree: "I would really get mad. I would feel frustrated like: 'Why are they lying to me?' And it did happen. My coach last year was not an expert I guess, and my coach now is an expert. That's how I feel. And they think of two different sides of rowing. And I am mad at our former coach because I have to correct so many things."

While in the preceding quote she seems to believe in the "right" way, in the next sentence when asked how she knows what is right in rowing she moves beyond the dualistic thinking and she acknowledges the subjective knowing: "I don't know. I don't think there is one exact way to do things. I think there are lots of different ways. Well you feel it's good. I think I am rowing good now. I think this is the right way. (Laughs.) I don't think there is really a right way though. Am I rowing the right way? To my coach I am rowing the right way. To another coach I might not. I don't know about that. I think in some areas there are right and wrong ways to do things, but in others there are not."

The instances, in which Diane pauses for a moment and laughs, might reveal the transitional points in her thinking where she is coming up with new understanding of her own reasoning and decision making.

Subjectivist knowers

Six participants articulate their epistemological beliefs predominantly as subjective knowers. They define truth as an "inner feeling", and therefore the truth is not seen as absolute and objective, as it is for the received knowers. Instead, it is perceived as personal and subjective.

Dick's account of his way of knowing illustrates the personal truth as the main characteristic of the subjectivist position.: "I know what is true to me from what I feel. ... And I would think it is almost emotional." When he articulates his views on teaching he also relies on how that feels: "I believe that if I have a curriculum set up in front of me, it would fall in the place. It's sort of immature, how I sound it, but I have a feeling and I believe that's actually what happens. Especially with children."

In his self-defined area of expertise, interpersonal communication, there is the same almost magical quality to his knowledge or beliefs about truth: "I don't know why, but I have been able to read people my whole life. I don't know how I got it, I don't know how it works, but I understand people so well and I've never had a problem with anything with people." His strong belief in his inner feeling as a source of knowledge was combined with his inability to rationally articulate the processes he uses to find the truth.

On one hand, when Erin is asked about how she knows what is true, she articulates a position of a subjective knower: "I think it (the truth) is more like an inside, instinct type thing. I usually sense it. If I am not sure what has been going on I usually listen to what my ego has been trying to say. I listen to thoughts in my head." On the other hand, when she talks about teaching, it is apparent that she reasons mainly as a received knower: " A lot of my ideas come from my practicum sites. And in the classroom right now, listening to other students, I get ideas. I think most of my ideas come from other classrooms. Or from

the things I read. But I am hoping I will have a lot of ideas of my own that will be a little bit original." Erin combines the elements of both received and subjective knowledge. She still depends on authorities, but in some instances, and particularly in conflicting situations, she also turns to herself to find out the truth.

For others who are primarily subjective knowers, there are different elements that contribute to how they know the truth. Carrie, for example, combines the components of subjective and procedural knowledge. On one hand, when she talks about her personal areas of expertise she is mainly subjectivist: "When I cook, I experiment. So even the first time I make something I would not follow the recipe exactly. I never measure things. I approximate, and put in as much as I think would be good for whatever I make. I rely on my instincts, and gardening is something about which I would say the same thing. And mothering too. Instincts 99% and most of the time it works all right. If I go by what the experts say, that's when I have a problem." On the other hand, she relies on her procedures to find out if an opinion is true: "Some people's opinions about what the right answer is might work more efficiently than others, or some opinions might lead to mistakes in the process of arriving at an answer."

Robin speaks mostly as subjectivist when she talks about volleyball, her perceived domain of excellence: "In volleyball I just know what to do. But this guy (a coach) was telling me what to do and he did not know a thing. And when I am a coach I say, 'Make your own judgment. Just watch out'. I don't tell people 'Do this!' Because I think it is wrong. Everyone knows how to play." Her knowledge seems subjective, based on internal authority and expertise. But when she talks about teaching, she emphasizes the importance of external sources of knowledge as a received knower: "One learns to teach by watching your own teachers and professors. I watched when I was a senior (in high school) and I

watch now, and I watch in my prepracticum all the time. And I learned through my mistakes, and by reading things."

Julia acknowledges the primary role of experience, and an inner sense or feeling in drawing and ceramics, the areas she identifies as her strengths: "In drawing, I was born with the skills and then I learned how to enhance them. I had some inner sense of how a drawing should look like and then I learned how to achieve that through different techniques." Like Dick, Julia perceives her "inner sense" as something that was given to her, which does not require conscious effort or rational reasoning. It is just refined through further learning. In teaching, which is a less familiar domain for her, Julia relies on her personal experience as a student in school. ["What would be the sources of your knowledge in teaching?"] "My life and things that I did in my classes that I enjoyed doing. ... But if I would have my class now I would also ask the children what they want to learn, I would ask them to develop their own ideas." Since she perceives knowledge as subjective, she feels that students, as well as the teacher, contribute to transforming the classroom into a learning environment.

Emily defines her way of knowing as a subjectivist: ["How do you know what is right or true?"] "I just know. I feel it in my heart. There are gray areas but some things I just know. ... Who are the experts? There are no experts. Everybody is just at the different level of learning. I guess I question everybody now. My doctor, everybody. I just don't believe in experts any more. We were brought up to believe there were experts. And in some way I still expect it in a frustrating situation. I am trying to find somebody who has a good answer." The rejection of outside authorities, another characteristic of subjective knowers, made her feel in charge of her own learning. At the same time, she is frustrated with the lack of certainty about truth.

Emily's epistemological reasoning is influenced by her connected mode of knowing: "I like to hear other's opinions. I am fascinated with somebody else's opinion. I want to know that somebody has a different way of thinking. I am usually swayed to somebody else's way of thinking. Not that I am going to change my mind, but it is easy for me to understand someone else's point of view. I am not rigid." This ability to understand others from their perspectives is a strength in her relationships, but it also stimulates her reflections on her own as well as others' procedures for finding the truth.

Peggy acknowledges personal experience as a way to find truths in teaching: "[How do you know what good teaching is?"] "You don't . I don't think there is any way to know that. Every teacher is different. Every teacher has their own ways of going about teaching."

Procedural Knowers

For three participants the predominant mode of reasoning about epistemological issues is procedural knowing. Their search for truth is characterized by looking at an issue from different perspectives and trying to adopt different lenses. Contrary to the effortless intuition of subjectivist knowers, procedural knowers focus on developing systematic procedures for accessing the truth involving both thinking and feeling.

Heidy points to the role of practical experience in learning and knowing: "I don't think I will learn a lot from experts. I think I am going to learn more about teaching or about myself by having to do what I mean. Although there are good teachers, like in this early childhood class. The professor is good in getting us in small groups and she gives me a lot of ideas to think about, and the readings are great. But what's the use of them unless you go and try them out? ... You learn to teach by observing and experimenting. It's just being around and trying to see how children learn. And when do you interrupt a situation, what do you do in each situation? I think it's just time. I don't think really any class can

teach you how to teach. It can just help with stuff like materials for you to learn, but I think it is basically experience."

Jill perceives herself as an expert in "keeping an open mind". Her reasoning is an example of connected procedural knowledge: " I analyze people a lot and I believe that people are inherently good and that something has pushed them off the path. That is the reason why they are being mean. I try to understand why they are that way and to feel with them. I think too often people just can't deal with the person without understanding that person."

Helen stresses the relativity of truth which, according to her, depends on individual's beliefs and developmental level. She combines some elements of procedural and constructivist reasoning: ["What do people mean when they talk about 'searching for truth'] " It might mean different things to different people and at different ages. My brother, who is 15, has asked for all the information he can get about Marxism, and republicans, and anarchism so that he can find himself a world view. He is looking through these resources as 'I am .....' For him that is the truth. He needs to fit into something like that. I think he has decided he is a neo-socialist, something really bizarre. He needs it, that's his truth. I search for my truth by coming to classes and by looking at research. ... Maybe truth is trying to see things from the different perspectives. Trying to see how Piaget and Vygotsky differ and what does it mean when I'll go into the class and teach."

In her area of expertise, archery, Helen relies on practical experience, as well as on other sources of knowledge: " You have to do a lot of archery first. Otherwise you are not going to know. When this kid says it's hurting him, you won't be able to tell him why it hurts. Because unless I have done it, how am I going to know why it happens? You can't

just learn by watching, or by reading about the steps. That's one of the things. You have to know. But reading is pretty important, and talking to people about archery. "

Constructivist knowers

Only one respondent in this sample, Jenny, demonstrates the characteristics of constructivist thinking in most of her reasoning about knowledge. She is able to integrate emotions and intuition with rational thinking in her quest for truth — which she perceives as contextual.

Jenny incorporates both external and subjective knowledge to find what is right or true: "I think it's important to learn about what you are talking about. If you are going to be very assertive about something then you need to have some kind of support, whether it is from literature, or from personal experience, or form other people's experience. You have to have some kind of support but I think my instincts are what really gives me the discrimination of right and wrong. "

She applies the same strategy of combining her "inner voice" and the outside sources of knowledge to find out how to write: "I think if you can get past writing what is expected of you, focusing on what's expected or what seems good to other people, and you feel confident about something that's just flowing out of you, then you don't have to work too hard, or be too critical about it. And when you look at it later and feel confident about it, that's how you can tell that you are accomplished. And again you can also draw from critical essays and discussions of writing and other people's opinions, but I think that primarily you just have to get your own voice and not filter it out. "

When Jenny thinks about teaching she relies on a variety of sources of knowledge. Although she valued practical experience, she placed it in the context of developing her own

ideas: "A lot of my ideas would come from books, from what I've read, from the activities that I've observed from other teachers I've worked with, and from the information on developmental psychology I've gathered together at this time. But I hope that most of the ideas for the classroom would come from the children and that I will know what to do with their ideas. ... In learning to teach, practice is the most important thing. Practice in spending lots of time with children and paying attention to the way they see the world and the way they feel themselves in the world that is totally adult oriented. I think teacher education courses are very important. I don't think they are the most important, but I think the more education you have about the ways people previously approached the challenge of teaching, and the way children actually develop, is important because you can draw from that information to kind of form your own ideas. The second most important is the knowledge of what's really happening inside a child, but I think the time and experience in teaching are the most important. "

Summary

In sum, the preservice teachers who are categorized as received knowers rely mostly on the authorities as the sources of knowledge, but it is important to point out that all of them also incorporate some elements of subjective knowledge at least in certain domains of their expertise. Received knowers differ in the amount of ambiguity about truth they feel comfortable with. Leah, for example, feels frustrated by any indication that truth is not certain. Diane, on the other hand, passionately searches for universal truths in some domains like rowing, while in teaching she accepts that truth depends on who is searching for it and what this person's beliefs are, demonstrating the beginning of contextualized thinking. Preservice teachers in this group are among the youngest in this sample, since four out of five of them are at or below the age of twenty.

Almost half of preservice teachers in this sample are categorized as subjectivist knowers. They rely on their inner feeling as a major criterion for finding the truth. They perceive the truth as something experienced and felt, and not thought about. They stress the importance of practical experience in learning and knowing. Although they are predominantly subjectivists, almost all of preservice teachers in this group also use either received or procedural knowledge for accessing truth in some domains of knowledge. As opposed to those who are categorized as received knowers — whose age range is narrow — the age span of subjective knowers in this sample is wide, from early twenties to early forties.

The three respondents who are categorized as procedural knowers are focused on the process of knowledge acquisition. They use their rational thinking as well as their feelings to access other people's knowledge. Two of them, Jill and Helen, also display some features of constructed knowledge. Both of them are post B.A. students, and their age was twenty three.

Jenny (21) is the only constructivist in this sample. She experiences herself as well as her students as creators of knowledge. She integrates both subjective and objective approaches to truth, and perceives knowledge as contextual.

There are several conclusions that can be drawn from this inquiry into preservice teachers' beliefs about knowledge and truth. These conclusions relate to differences in individual accounts of "ways of knowing" in the diverse domains of learning, as well as to shared features of reasoning about the sources of truth among respondents. The strength of using open-ended interview questions in this study and the value of asking participants to comment on certain epistemological statements is that the nuances in their reasoning could be identified. New ways of thinking that are still emerging seem to be recognizable by the

pauses in students' narratives, by laughs at the times when they feel uncomfortable or unsure, as well as by the volume and tempo of speech that suddenly becomes softer and slower than before.

The most significant finding relating to epistemology is that the majority of the participants are predominantly subjective or received knowers. It confirms McAninch's (1993) predictions about the "ways of knowing" of students who enter teacher education. It is also important to note that all respondents in this sample who are categorized as primarily procedural or constructivist knowers are either post bachelor degree students or they are undergraduate students who spent some time out of school prior to college. This finding is consistent with the notion that the sequence of epistemological positions is a developmental phenomenon, related to age and life experience.

Another significant finding is the disparity between participants' personal beliefs about knowledge in teaching and the other domains of their expertise for the majority of preservice teachers in this sample. In the areas of their own expertise, most participants rely on subjective knowledge. In the domain of teaching, the students with a broader range of prior teaching opportunities who already consider themselves accomplished in teaching, rely mostly on practical experience and how they feel about their teaching, while the students with less exposure to teaching look for the sources of knowledge in their professors, readings, or peers. Jenny is the only participant who places her practical experience in the context of both theoretical models of child development and theories about learning.

Participants are more articulate about their "ways of knowing" when elaborating on the domain they identify as their own area of expertise. In comparison, thinking about truths related to teaching seems harder and more elusive. An obvious factor that contributes

to this lack of clarity about sources of knowledge in teaching is the limited amount of teaching opportunities some respondents have.

As Britzman (1991) points out, the notion that "practice makes practice" or that practical experience automatically lead to good teaching characterizes most preservice teachers' perspectives. This viewpoint disregards the role of both reflection and outside sources of knowledge such as other teachers, students, or community members, as well as theories and empirical research in building the knowledge about teaching. For most respondents, theories related to teaching are viewed as irrelevant for classroom practice.

All respondents accept the multiplicity of opinions in the gray areas of knowledge. However, it is not indicative of their position in terms of Perry's (1970) scheme. Some of them, like Leah or Maria, still reside in a dualistic world of single right and wrong answers, although they acknowledge the differences in opinions. Heidy and Diane, on the other hand, accept the possibility for multiple truths in some domains but not in others, while Helen and Jenny interpret the different viewpoints as illustrations of their belief that all truth is contextual.

Educational Identity

This section focuses on participants' notion of themselves as students in school, from their early school experiences in preschool and elementary school to their reflections of themselves in college.

Personal experiences of school vary significantly in this sample. Carrie had a "cruise all the way through elementary school." Jenny was identified as gifted but was never academically motivated until college. Emily experienced the elementary and high

school environment as rigid since the "emphasis was on discipline and knowing the right answers". Theresa "had to work extra hard" to compensate for her learning disability. Still, there are two common themes contributing to respondents' educational identities: their perceptions of their intelligence and their math abilities.

Math Ability as a Criterion for Identity

When asked to describe themselves as learners in school, nine out of fifteen respondents comment on their math abilities. When they talk about themselves as learners in school, preservice teachers mention math more often than all the other academic subjects combined. How well they did in math is very significant for their perception of themselves as learners in general. These are some typical comments:

- Julia: ["Tell me about yourself as a learner in school."] "I am not good at math, I can tell you that. I think I was pretty interested in school. I always got pretty good grades like B-s and A-s and C-s and average. I like to read, I always used to like to read when I was in school. ... I did not have any problems with self-esteem except in math. Especially in college. I took math and I failed, and I just felt stupid. But that's just not my strong point."
- Helen: "I am curious about most things. I shut myself off from math. I am not really good at it. Of course it is a self-fulfilling prophecy."
- Jill: "When I feel pressure, like for instance math, high school math, I did poorly on one test and from then on I couldn't regain my confidence. And every time it came I got so nervous and I felt: "Oh, I have to do that." At younger years I was pretty good, well I was not specifically good at one topic, but I was good. But as I got older and had that experience with math I just kind of pushed the math aside and was interested more in arts and literature at school. ... For the most part I was a pretty good student, and aside from math I didn't have difficulties. And aside from the math experience, I always had confidence in myself. ... Math was..., it was too intimidating for me. Freshman year I

had a difficult time. It was kind of those cycles: I did poorly on one test and I knew I had to do well on the next test and that pressure had got me. And I was trapped down defeating myself. And really until my senior year, until I got trigonometry, I wasn't good in math. And in trigonometry I did very well, and I think it's because trig is more a sort of puzzle course and I like that aspect of it. It's more fun than having to come with specific theorems to memorize. But since my senior year in high school I avoided math. Well I am taking a math class right now, about teaching math. ... I think it's a really good approach to teaching math and making it more fun as a concrete subject. Instead of this abstract thing that you can not really grasp."

- Leah: "Math was always difficult, always difficult for me. I could not do it. I just feel that math is not my strong point. But I could still remember I would kill myself like at two o'clock in the morning I was still up trying to do my homework. And everybody else was always good and I was bad. And my teacher was passing me with a D."

Inquiry into this finding of low math self-esteem points to another fact in the data, namely the disproportionate number of teachers respondents characterized as the worst teachers they had in school were teaching math.

- Erin:["Who were the worst teachers you had?"] My freshman year math teacher. He was awful. ... He had no idea how to teach. He could not actually tell you how to do problems, and even if you would get the right answer he would mark it wrong because you did not have the whole procedure down. ... Or he would mark you down because it was not the way he did it. So I did awful in that class because most of the math I do, I do it in my head. ... When you did a thing wrong you would have to write 'I must know', on the board and then he would write the rest."
- Helen: "When I was a sophomore or freshman in junior high I was a year ahead of my class in math. And then I had this teacher Mr. D. who was the hardest teacher, he called

me probably six times in that year. I hated that class. He singled me out saying: "You can't do this. You have to write on the board for me." And he would dictate. He would take homework and test us. He was a horrible teacher. Homework is not for testing, it's for practice. I just didn't know how to learn this stuff. I was miserable that whole year. ... He was really mean. I just did not learn anything from him. I shut myself off immediately. From then on, from his class that was a sixth grade geometry class, I got out of it by getting mono. And he told my mom that he was nice that he gave me a C. And then I dropped into another math that was a way lower than before. I was a year ahead of my peers in the sixth grade, which means I was one of the smart math kids. I stayed a year ahead but I dropped into a dummy math class. And that teacher, he took advantage of my math skills and tried to make me feel better. I did all right, I probably got an A or maybe B. But even so I was scared of math and I gave up. And the year after that I thought 'forget about math'. And I took the whole year off math. ... So Mr. D. ruined my math life. Because of him I just don't feel I have the confidence to do anything. And I blame him for it, I totally do."

- Jenny: "I tended to have problems with teachers of physical sciences and with teachers of math because I think I had so much tension about having to deal with the subject where there is only one answer, only one formula and there is no other way to go about it. And I was getting all these horrible grades all of the sudden because I did not want to do that, the way they taught. ... I had a hard time dealing with them because they were programmed to teach and expect the students to answer the certain way."
- Dick: "I had Mr. F. as a math teacher. He was the worst math teacher. I think it was algebra and he would just do it. I think I had a D in that class. It was infuriating. I just could not do it."
- Leah: "In the third grade I had a horrible teacher. She taught advanced math and advanced reading which I was in. And I had problems learning my six-times-table and

no matter how much I studied I could not remember it. Not only did she yell at me and embarrassed me in front of the class, she told me that I was an awful student and that I

- did not do my work. She made me skip my lunch and I was starving. I was supposed to sit in the classroom and study my six-times-table."
- Jill: "Mrs. D., my math and physics teacher, she was just awful. ... She was very, very strict. And just needlessly so. I remember at one point I forgot a pencil and she had four or five paragraphs on construction paper about coming unprepared to class. I had to copy that 60 times or something like that. I remember being petrified because my older brother had written in my book, my math book, ... and at the end of the year we would return our books and she would look through them. ... She was the worst teacher I had."
- Carrie: "I had this math teacher in high school who just made me feel as an idiot because I could not understand the material and he flunked me. He flunked me in his course and I got a C from the other teacher and I scraped by. But math is something I was made to feel I would never understand. 'Girls don't understand math, boys understand math.' I still don't really understand math, but being married to an accountant I don't need to. He takes care of our stuff."

Erin is unique in this sample in considering herself good in math although she did not enjoy it: "I was always good at math. I always hated it but that was something I was good at. ... ["Why did you hate math?"] "I just felt frustrated. We were doing our things and finding out the wrong answers. And you had to go over it and figure out where they are and that was frustrating. But eventually I would get it. If I could not get it I had to sit down and do it. I could not just leave. So that's why I was always good at it. And I had to finish it. Even if it was just a little puzzle I have to do it, I can't just leave it. I love challenges."

Only two out of fifteen students in this sample enjoy math and think they are good in math.

- Peggy: "I am a logical thinker. I am very good in math. ... I never had any trouble with school. My father was good at math and he helped me with that, but I was always able to do things for myself. And if I did not understand something, when I would look at the problem I could always go back in the book and find it."
- Heidy: "I am good at academics. I have very high GPA. ... I am very good at math, even today. Everyone in education classes is horrible in math. And I got 100 in my math classes. I really enjoy math." Heidy also mentions her father who helped her with math: "My father likes to play. He introduced me to soccer, I was in the girls league. He also was always helping me with my math and sciences. He is fun."

Intelligence as a Criterion for Identity

Talking about their perceptions of themselves as learners in school, participants frequently mention the situations in which they "felt stupid" or "felt like idiots" as critical events that influenced their educational identities. They also reflect on "school smartness" and intelligence. This finding, evident during the initial phase of the project, prompted an inquiry into respondents' notions of intelligence and their perception of their own intelligence.

Some participants relate intelligence primarily to the amount of knowledge:

- Theresa: "I think it is how much you know. It's not how much smartness you have. It's how much you want to learn, you're willing to learn.
- Robin: "I think intelligence is the knowledge you have about academics and also common sense. So intelligence is about school and intelligence is about life."
- Peggy: "Intelligence is how much knowledge someone has and it's not even knowledge, it's how they can relate to others."

- Jill: " A pat of it (intelligence) is a desire to learn, love for learning. And to have an open mind. Another part is the actual success, or an amount of knowledge one has. I don't know if it is actual success. Maybe just the amount of knowledge. An intelligent person is someone who can discuss and debate well."
- Maria: " Intelligence is what you know about the subject, or sometimes how you can handle those situations literally from the books."

Others define intelligence primarily as the ability to reason and solve problems in different situations. Often times intelligence is described as "common sense."

- Emily: "Intelligence is the ability to solve problems through reasoning or common sense. In fact it is the combination of the two. It's sort of knowing your limitations and knowing the opposite - your strengths."
- Dick: "I believe it is the integration of common sense and learned knowledge. People are not necessarily intelligent if they know the periodic chart of the elements. In order to be intelligent you have to integrate common sense."
- Julia: "I don't think it is being book smart. It is common sense or knowing right from wrong, having certain values. I don't know. I don't think everyone is intelligent to the same level. But everyone has basic intelligence."
- Erin: "I don't think intelligence has a lot to do with how well you do in school. For instance my brother never did well in school but I find him very intelligent when it comes to mechanical work. So I think you should look at more than IQ or how well one did in school. You should get a broad sense of how a person acts socially, how the person acts mechanically, and also like in school.'

Several respondents perceive intelligence as curiosity and motivation to find the answers.

- Helen: "I think it is curiosity, it's how you can figure out all that stuff and the different ways you can come up to solve the problems."
- Similarly Jenny comments: "I think intelligence describes a very specific interest in some topic, not necessarily what school would consider an academic topic, that if you have real interest in a variety of topics then you are motivated to pursue those and find out answers about those things for yourself. And that you have the skills to do that. I think it is very social too."

A noticeable theme in the data is participants' ambivalence about their own intelligence. Answering the question whether they consider themselves intelligent according to their own definition of intelligence, they reply:

- Dick: "Yes, I guess. I believe I am (intelligent). I am not incredibly book smart but I am easily able to adapt my world using the knowledge and experience."
- Erin: "I would not call myself intelligent, but I would not call myself not intelligent. I'd say for the most part I had a good head on my shoulders."
- Robin: "I am not the brain, but I have common sense."
- Peggy: " Not extremely intelligent. Moderately intelligent."
- Heidy: "Yes, because I work hard. I am not that intelligent in writing. Not that I am not intelligent but I need to work more in that area. I am more intelligent in math and science probably because I am more interested in it. And as a whole I try to think of myself as intelligent."
- Emily: "Yes, I am intelligent because I know my strengths and limitations. I have a stronger intelligence in some areas than others. I am stronger in common sense than in analytical thinking. So I am more street smart."
- Julia: "Yes, of course. I think in art I am intelligent. I know what is going on. With math I am not that good. I have my own little niche where I am more intelligent."

- Maria: "Well, according to my criterion I am intelligent. I just don't have a lot of common sense."

Some definitions of intelligence are shaped in ways that reflect an individual's strengths and characteristics. For example, Theresa, who describes herself as a hard worker, defines intelligence as willingness to learn. Helen, who notes that she is curious, defines intelligence as curiosity.

Summary

Participants' notions of themselves as learners in school are significantly influenced by their experience of math. Math is significant for these preservice teachers as a measure of smartness and at the same time it is an area in which most of them have low self-esteem and it appears that even minor unsuccessful episodes had the potential to ruin their perception of themselves as capable of understanding and mastering that subject. The finding that a disproportionate number of math teachers are perceived as the "worst" teachers they had in school could be related to respondents' low self-esteem in their math abilities. The same kind of teachers' behavior that ruined participants' self-esteem in math would probably not be that significant in a different curriculum area where students felt more self-confident. Therefore, it is more likely that the findings do not reflect the fact that math teachers they had were "worse" or less supportive than teachers in other subject areas, but the fact that for the majority of respondents, their confidence about their math abilities was weak and vulnerable in the first place. Incidentally, the only two women in this sample who developed self-confidence in math had male mentors in that domain.

Intelligence is important for entering preservice teachers' educational identities, as well as a "filter through which they think about and express themselves as adult learners" (Lutrell, 1989), and a filter for success in life. Although they have different definitions of

intelligence, there is a common notion that intelligence is a trait that has several components and that intelligence varies across different domains. Many respondents perceive intelligence as a social trait. Most participants are ambivalent about their own intelligence. They do not consider themselves "school smart", but nevertheless they can identify the academic areas where they excel. By and large, they express confidence in their abilities as learners.

Theme 2: Images of Teachers and Teaching

The purpose of this section is to analyze preservice teachers' ways of thinking about teachers and teaching revealed through the interviews and essays. Images are defined as mental constructs (Elbaz, 1983) that capture the basic qualities of a particular concept. These images are derived from participants' reflections about teachers they had both in and out of school, their ideals of themselves as teachers, and their definitions and description of teaching. The first part of this section is the summary of the findings about the concepts of good and bad teachers, the second part consists of an inquiry into the metaphors used to describe teachers, and the last part focuses on preservice teachers' images of teaching.

Good and Bad Teachers

When describing their educational experiences, one of the major foci for entering preservice teachers are the characteristics of good, best, outstanding, or excellent teachers. Equally important is the topic of bad, awful, or worst teachers from their past. Not all participants talk about their former teachers in these dichotomous categories and a few display a more complex categorization mentioning the "mediocre teachers," "hapless teachers," or "gray teachers," that influenced them in a significant way. It is evident that their perceptions of the extremes, "good" and "bad" teachers, directly influence their

expectations of themselves as teachers, their thinking about teachers' roles, and their visions about possibilities in teaching, as well as their perceptions of the significance of teacher education in contributing to their professional identity. Due to the importance of the constructs of good and bad teachers that emerge from the data, their components are described and examined.

Personality Characteristics

The majority of participants mention certain personality traits when talking about good teachers. These traits are most often thought of as given — something that a person possesses or not — and therefore they are viewed as essential attributes of good teachers that can not be affected by teacher education.

- Jill is explicit about this: "I think certain people have the personality or what it takes to be a teacher. Part of what it takes to be a teacher you really have or you don't. I think patience is a key part, especially with little kids, and you either have it or you don't."
- Leah comments: "I don't think you can learn to be a good teacher. They can teach you different methods and different ways to do it (teach) but it is something you are born with. Either you are a good teacher or you are not."

These examples reflect a static and deterministic belief that innate personality traits characterize good teachers.

Apart from patience, which is mentioned by 4 out of 15 participants (27%), other personality traits considered important for a good teacher are, having an energetic/dynamic personality (27%), curiosity (20%), having a bizarre personality (13%), flexibility (13%), happiness (13%), and spontaneity(7%). Similarly bad teachers are described as those who lack these personality characteristics. One of the most commonly mentioned characteristics of bad teachers is their lack of patience.

The following quotes illustrate the reasoning that personality traits make good or bad teachers.

- Helen talks with excitement about her English teacher in high school: "In my sophomore year I met Mr. H. a pretty bizarre man. He has this strange way of speaking and we were doing short stories when he was my teacher. And he chose bizarre short stories, it was awesome."
- Similarly Carrie mentions her professor in a community college: " He was a truly bizarre character and I'll never forget him. He had a physical presence, a way he taught that class. Most of the time he came in dressed in a t-shirt and ripped off jeans, and his hair was wild and red. He used to stage events just to check our reactions ... and then we talked."
- Other teachers that she identifies as best teachers also had a "presence" or special physical traits that made them exceptional: "He (a ninth grade English teacher) was really dynamic. He was very physical. He was also the track coach in high school. He hopped a lot around in class. He had a presence there. And the other teacher did too. She (a sixth grade science teacher) was a little woman with a big voice. She had a physical presence."
- Leah describes her kindergarten teacher, whom she considers as one of the worst teachers she had in school, as being extremely rigid and lacking any flexibility: "The only thing I could remember was her sitting at her desk. ... She told all students to put a pencil in their right hand because she did not want to deal with people putting it in the left hand and right hand."

Relationships with Students

Another characteristic of good teachers according to entering preservice teachers in this sample is the kind of relationships they establish with students. Five participants talk about good teachers as being friends. The assumption behind this notion of teachers as

friends is that they care for the students not only in terms of their academic performance, but also for them as people beyond the walls of the school. Others describe this caring relationship as parenting or providing.

Jenny talks about her teacher, who taught in a special program for gifted students: "A teacher I had in the fine arts center turned out to be a real mentor and a real friend. ... She was the best teacher I ever had because she taught us a lot but she also became a friend, and she was really warm. There were nine of us and we were together for three years in these workshops. It was totally ideal. We knew each other well enough, and we knew each other's work well enough that we could critique it honestly and comfortably, and really make a lot of progress. She was really the cause of that because she made us feel very respected."

Other participants also refer to respect for students as a foundation of teacher-student relationship. Leah mentions: "(Good teachers are the teachers) that had basic respect for the kids. If I see a teacher who respects children I am also going to respect that teacher, but if I see a teacher who does not respect children there is no way I am going to respect that teacher."

One way teachers demonstrate respect for students is their willingness to listen. One out of three participants mentions that good teachers are good listeners. Dick comments: "Mr. L. was a really good listener. If I look back I can only think of those teachers (as good teachers) who listened to me. Likewise the teachers I did not like were the ones that didn't listen."

On the contrary, lack of respect demonstrated through unwillingness to listen, yelling, or other ways of humiliating students, "turned the students off" and contributed to

the distance between the teacher and the students and it is one of the most commonly mentioned characteristics of bad teachers.

- For example, Helen comments on her first grade teacher in this way: "My first grade teacher yelled at us all the time. She would always yell. Everything was a problem. I shut off my year because I could not listen to all that yelling. ... And in my 23 years I never had that much yelling as in first grade."
- Jenny: "There was only one teacher that I remember as being really bad and that was my first grade teacher. That was the only teacher that I ever remember feeling animosity toward. Because she was the kind of teacher that would humiliate you in front of the class, and send nasty notes home to your mother. I felt like I could not win with her."

Erin focuses on the personal relationship that is epitomized in lack of anonymity. When she talks about her excellent third grade teacher she says: "I think in my senior year of high school I walked in the hall and he (the third grade teacher) saw me, but I did not notice him so I didn't stop walking, and he just said: "Erin Stone". So he still knew who I was. This was the first time I've seen him after the third grade but he still knew me even though I changed so much! I thought it was great that he remembered me like that."

Not establishing this kind of close personal relationship is considered a characteristic of bad teachers.

- For example, Leah notices: "I remember teachers that might have been nice people but they were not good teachers. I knew teachers that were so burned out that you couldn't have a conversation with them."
- Emily refers to her third grade teacher who did not establish personal relationship with students in this way: "She read us these wonderful stories, but other than that she was terrible. She did not know her children. She did not remember children's names. She

was too old. And she would forget your name. And that's how you would get in trouble sometimes because you didn't know that she was speaking to you."

When Jenny generalizes about the best teachers she had in school, she also comments about the personal one-on-one relationship with her teachers and their respect for her own interests: "I did not feel anonymous. I felt that someone actually knew what my interests were and where my strengths were, and was willing to say: 'OK, if you don't really care much about this, then let's focus on what's really been interesting.' They were all very, very warm and maternal figures too. They were there to advise you and they were not authoritarian at all. I could approach them with any of my daily problems and they were interested in helping. My relationship with them went much further than the classroom and all of their students felt that way because we were comfortable enough to go and talk with them. Even the students who were not succeeding were still OK in their eyes."

Good teachers are viewed as being fair in their relationship with students. While in the preceding quote, Jill thinks of good teachers as fair and open to students regardless of their academic standing, other participants, comment on fairness related to the instruction and grading policy.

One of the main characteristics of bad teachers, on the other hand, is their lack of fairness, or as some participants formulate it, "these teachers played favorites." Robin provides an example: "In eighth grade I had a French teacher and he only liked certain girls. I never felt so out of place in the class. ... He had like a cool attitude, and those who played up to it he loved and those who were too shy he did not like. He was really judgmental. I just did not like his style."

Knowledge

Participants characterize good teachers as knowledgeable. Entering preservice teachers focus on several subcategories or domains of knowledge in their descriptions of good teachers.

Good teachers are knowledgeable about child development. They understand children's needs and capabilities and children's thinking or they are able to "get into kids' minds." Here are some examples:

- Dick: "Good teachers understand. I think to a certain extent you have to put yourself in another person's shoes to understand them and with the children it is the same way." Dick accomplished this understanding as a swimming instructor: "The first thing kids said was: 'There are crabs.' And I said: 'You know what are we going to do? We are going to tell the crabs to get out of our way. Everybody, I just want you to put your face in water and blow bubbles. Just like that.' And I put my face right in the water and did it. And everyone but one student did it in the first day. And my jaws just dropped. I did not know what to do. ... It was this little feeling inside of a triumph. ... I got there, I thought like they thought, and they did it. That had a tremendous effect on me."
- Diane: " (Good teachers) understand your thinking. If they would ask a question and I did not understand it, maybe they could ask it in another way to make me understand. ... My sociology professor could do it really well. He could understand how students think, what they are thinking. And from last year's classes, (he understood) what the problems were."

Good teachers have a broad subject matter knowledge that enhances their teaching skills. However, according to most participants, they do not need to be experts.

- Leah: "(Good teachers are the ones) that knew ten times more about the material than others. Not just the basics. ... You have to know the material that you teach."

- Erin: "I think as long as teachers know what they are doing they don't have to be experts. But they have to know what they are doing. ... They have to know what they are teaching, but I don't think that the teacher at the elementary level has to know algebra. But they have to know basic math."

Good teachers have pedagogical knowledge or knowledge about how to teach. Jill refers to her fourth grade teacher: "I enjoyed her way of teaching, acting out the things instead of lecturing. ... When we were studying about slaves, I remember one time she had us get under our tables or desks and sit and imagine we had to get the whole body within that enclosed area which, we had to imagine, was our place in the boat for a set of time. Or we had to lay down next to each other and imagine this tiny space we had. Things like that made what we were learning more real."

An important aspect of pedagogical knowledge is knowledge about organization in presentation of material.

- Diane: "I had one math teacher that was really good. I enjoyed her because she used to set everything like step by step, by step. She would just break the things down so that you could understand it."
- Heidy: "(The science teacher in high school) was really organized. She was like: 'OK, this is what we have to do. And this is the due date. And this is what we are going to do. This week we are going to learn about this.' And I needed that because I would go in knowing what to expect."

Good teachers have general knowledge about the world beyond the subject matter knowledge, or a breath of life experience and common-sense knowledge that makes their teaching relevant for the students.

- Jill talks about her grandmother, whom she considers her mentor: "My grandmother is kind of eccentric, and she is a fun person. She is very obsessive about certain things but very enjoyable to talk to. She always has something interesting to share. ... She is just an interesting person that I like going to, specially because of her age. It's fun to talk to her, and listen to her insights, and her thoughts about current situations and issues."
- Helen mentions her accounting teacher: "Every month or so he would get either frustrated or overwhelmed with life that he would sit and talk to us about one thing. Like I remember one day it was mobile telephones. I think he wanted us to invest in them, but at the same time he was mad that they were a big thing because they meant that life was becoming more and more compartmentalized. He used to give us all this life advice."
- Leah: "I had a biology teacher to whom you could talk to. She was basically grooming us for college and to be successful in the world. She would present her classes as lectures and she was teaching us how to write everything down and then sort the notes later. ... She helped us to know which college would meet our needs and she helped us with our SATs."

Enthusiasm for Teaching

Apart from all the personality traits, knowledge, and interpersonal skills, good teachers are distinguished by their investment in teaching and their motivation to do it. They are often described as the ones who enjoy their teaching.

- Carrie: "My science teacher in the sixth grade was the first teacher I encountered who was really excited about what she was teaching. She really turned me on to science. She got me really into it because she was so into it. Astronomy was her thing. She was just so excited when she talked about constellations. She even made us meet with her Friday nights on a field and she would look at the stars with us and show us what were all those stars. She was just great like that. Very exuberant which made a difference."

- Dick talks about his physics professor at the university: "It was an extremely difficult class for me, but the difference with it was my professor. I can still see him, he called me Richard, and he was a wonderful person. Every single Sunday we worked together, every single Sunday including holidays. It was just a tremendous encouragement. And the class had 150 people and he did make the time for that."

However, bad teachers are described as not engaging themselves in their teaching role. Their lack of enthusiasm had a negative effect on students' learning.

- Julia: "The worst teacher was a gym teacher I had. The only reason he was there was his tenure. And he just did not teach the class at all, I mean we didn't have to do anything."
- Peggy comments about the worst teacher she had in college: "I had one professor here and he just did not teach the material. He would talk about irrelevant things. We would end up going home before the exam to teach ourselves, to help each other. He did not cover the material. I think that he did not care."

Summary

Participants have a very clear concepts of good and bad teachers. They evaluate their former teachers based on personality characteristics, their relationships with students, knowledge, and enthusiasm. In accordance with previous research findings (Weinstein, 1988, 1990), entering preservice teachers in this sample are generally confident about their own abilities as teachers. They think of themselves as having the personality traits, interpersonal skills and enthusiasm for teaching.

Inborn personality traits are perceived as prerequisites for good teaching, since they contribute to students' attention, interest, and openness towards the teacher, and therefore constitute a prerequisite for learning. This assumption significantly limits the perceived

potential of teacher education in enhancing one's capacities as a teacher. It is interesting to note that these same personality traits such as curiosity, patience, or happiness are prominent in participants' descriptions of themselves. Consequently, they consider themselves equipped with attributes that would make them good teachers. As an illustration, Peggy who mentions that good teachers need to be happy and flexible describes herself this way: "I am very social. And usually I am happy. People always tell me I am never in a bad mood."

The ability to establish personal relationships with students is universally recognized as a necessary attribute of good teachers, and it is also the characteristic participants often ascribe to themselves as they reflect on their teaching experiences.

Knowledge in the domains of child development, subject matter, pedagogy, as well as breadth of life experience is perceived as another characteristic of good teachers. By sharing their knowledge and experience, good teachers are perceived as the ones who prepare students for "real life" and expand their horizons. The last quality that characterizes good teachers is their enthusiasm for teaching and motivation to do it. Although most entering preservice teachers in this sample believe they already possess the prerequisites to be good teachers in terms of personality traits, interpersonal skills, and enthusiasm, they recognize their need to gain more knowledge about children, pedagogy, and curriculum. They expect to learn about these domains during their preservice teacher education.

Teacher Metaphors

Participants' narratives of their school experience and their reflections and visions of themselves as teachers are rich in metaphors. Metaphors are used to illustrate particular teaching roles, and to embody their beliefs about the relationship between teaching

and learning. This section contains the analysis of metaphors that illuminate beliefs about the teacher's role in students' learning. Metaphors that convey similar ideas about the relation between teaching and learning are grouped together. The ways teachers use knowledge and information to promote student learning is conceptualized differently in each of the three clusters of metaphors describing teachers.

Teacher as Disseminator of Knowledge

Several respondents consider a direct link between teacher's sharing of information and students' learning. Julia uses a metaphor of a teacher as a "fountain of knowledge". She describes the teacher as a source of information, who "sprinkles" the students who in turn get "wet" or knowledgeable. Similarly Dick talks about a teacher as a communicator, a person who "shares ideas and concepts that may not be familiar to someone else." Dick wants to be effective in this sharing of ideas and, like Julia, he also uses the water metaphor to represent knowledge: "They (the students) are going to absorb much and I just want to make enough water around them so that they can absorb."

Teacher as Leader

The following group of metaphors of teacher as a leader suggest a more complicated interaction between teaching and learning. The teacher's role in students' learning is still central but the teacher is considered as a "director" and "coordinator," not a direct cause of learning. Dick uses a metaphor of a teacher as a "movie director" who shares his ideas, but any two people watching the movie "are going to get different ideas from it." This metaphor suggests that learning depends not only on the teacher's message but also on the students' understanding of that message. Several different styles of teaching as leading are clustered into this category.

Emily talks about a teacher as a "conductor of the orchestra". The conductor needs to "know the instruments" but he/she is also a leader and a coordinator in order to produce the learning outcome. Similarly, Carrie mentions that the role of a teacher is, "to ask students questions, and in doing so, to lead them to where they might find answers."

This image of the teacher as a leader emerges from other metaphors too. Leah elaborates on the teacher as a "manager of a business": "The teacher is like a manager of a business because the teacher provides the learning environment, or the work environment. (The teacher) provides the materials to do the work with, and provides some basic idea about how the company is going to be run by the workers: who is in charge, what is acceptable, what is not acceptable. And basically what you're supposed to get done by the certain amount of time. And then it is up to the employees to get to that certain point and they can ask for help. And instead of getting paid, they are learning. That is their payment. It sounds awful but it actually makes a lot of sense." Similarly Maria talks about the teacher as a "boss".

Teacher as Catalyst for Learning

The most commonly used metaphor of a teacher is that of a guide. This metaphor has different connotations and therefore it is important to examine what respondents mean when they talk about teachers as guides.

- Maria talks about a guide as a friend and a parent who provides a safe environment for growth, but leads the initiative for learning to come from students.
- Jill talks about a guide who is a motivator and a resource, who would "push" some students if necessary to "get them started".
- For Diane a guide refers to setting the limits of acceptable behavior to help children learn. She uses another metaphor that suggest that the teacher sets the structure within which students are in charge of learning. She talks about the teacher as a "safety net".

- Jenny elaborates about guiding that she differentiates from leading: "Teaching is like walking with a group of children down the path, and I think too many teachers think they are supposed to be in the front of the group navigating the way, but I think the real teacher is someone who walks in the middle of the group and holds the flashlight so that the kids can roam from one side of the path to the other. But if they need help the teacher is the one they can come to. So the teacher is a guide but not a leader. And teaching is being able to focus on what children are interested in and how they individually assimilate new information, and providing the materials to make it happen. And serving as a sounding board for their questions and the resource of information and an advisor. But not a leader, not a lecturer."

Teaching as guidance requires an amount of flexibility about the content of the curriculum. Several participants who use this metaphor had a teacher who modeled this approach. For example, Jill had an English teacher who encouraged students to experiment with different forms of creative writing that enhanced their imagination and creativity; Jenny had the opportunity to pursue her own interests in the program for gifted students; and Helen's English teacher encouraged free expression of student opinions about the different topics that she recalled as inspiring and eye opening.

Discussion

Teacher metaphors are grouped into three clusters: disseminator of knowledge, leader, and catalyst for learning. The first metaphor is based on the assumption that there is a simple and direct link between teaching and learning. The teacher disseminates knowledge that children "absorb". This metaphor represents the belief that if the teacher shares his/her knowledge, students would inevitably learn. The teacher is considered a direct cause of learning simply by telling students what he/she knows.

In the second metaphor, the teacher mediates and orchestrates student learning by both preparing the learning environment and leading children through the learning process in a planned manner, in order to reach previously set learning outcomes.

The third metaphor is based on a notion that learning takes place only when students are interested and curious, and that the teacher's role is to trigger that curiosity and provide an environment conducive to exploration. In other words, students direct their learning while the teacher "sets the stage" and facilitates it. The assumption behind the metaphor of the teacher as a catalyst for learning is that children are predisposed to learn or discover knowledge by themselves, hence they are in charge of their own learning. It makes the teacher's role somewhat different, although no less important than it is in the other metaphors. The teacher's role is to nurture the child's inherent curiosity and love for learning by providing a safe learning environment and by being attuned to the various interests and needs of different students. As Emily put it, referring to her goal to support children's interests, "so that they can learn more things and be self-directive learners. ... And they will want to find out things. Sort of keep that curiosity that younger children have."

The analysis of teacher metaphors points to the different ways respondents conceptualize teacher's role in student learning. The three clusters of metaphors differ in the amount of responsibility for learning placed on the students. Those who use the metaphor of teachers as disseminators of knowledge assume that students are blank slates who would absorb any information teachers present. They focus on the interaction from the teacher to the students, although one of them acknowledges that students also teach teachers. The second metaphor of a teacher as a leader also emphasizes the interaction from the teacher to the students since the teacher sets the goals and chooses a particular way to come to a

predetermined learning outcomes. The last metaphor of the teacher as the catalyst for learning suggests that the teacher facilitates, but is not solely in charge of the learning that takes place. Teaching is therefore more a matter of listening to students who articulate their questions, interests, and opinions, and helping them find the answers for themselves, rather than telling them the answers. In this metaphor, both ways of interaction between the teacher and the students are equally important and the teacher is seen as a partner in student-initiated inquiry.

Images of Teaching

In this section I will summarize the findings about entering preservice teachers' perceptions of teaching. These findings — although they overlap to a degree with the metaphors analyzed in the previous section — reveal more about respondents' understanding of the process of teaching, which is one of the central research questions in this study. Participants' images of teaching cluster into two major categories — responsibility for students' well-being, and responsibility for student learning — based on the dominant aspect of teaching in each image. While some respondents conceptualize teaching as including only one of these components i.e., teaching is thought of as either promoting student well-being or motivating students to learn, the majority of respondents consider both categories as constitutive elements of teaching. The images of teaching gleaned from the interviews and personal statements are described.

Teaching as Responsibility for Student Well-Being

For most respondents the notion of teaching is associated with caring for students by meeting their emotional needs, and supporting their positive self-concepts. Two images are used to illuminate this aspect of teaching.

Teaching as Enhancing Self-Esteem

Describing the best teaching they experienced as students, discussing their current notions of teaching, or the kind of teaching they would focus on in the future, nine of fifteen respondents refer to teaching as enhancing self-esteem.

- Helen talks about teaching as enhancing self-esteem as she describes her English teacher: "I had a fantastic teacher who still writes recommendations for me. She was my English teacher in the sixth grade. First of all I was in the fast track. And she used to tell us: 'You are the best and the brightest. You are the cream of the crop.' She used to pump us up." Helen expressed the same idea when she talks about the meaning of teaching as letting students "know that they are capable of learning," or when she claims that she, as a teacher, wants to "instill (in students) self-confidence about themselves as learners."
- While Helen links self-esteem directly to learning, others focus on enhancing self-esteem in general. Robin talks about teaching as "making kids feel important," while Jenny describes teaching as "promoting self-esteem, ... and making kids feel worthy to make decisions for themselves." Her main goal as a teacher will be "to produce children who have a lot of faith in themselves and a lot of confidence from very early age. Similarly Theresa hopes that she will "allow children to have confidence in themselves".
- For Peggy, supporting self-esteem is important beyond the learning outcome: "Even if you (as a student) don't go away learning something, you walk away feeling confident, not feeling: 'I am a failure.' Just having a confidence, even if you don't accomplish something."

Teaching as Parenting

Six out of fifteen participants mention another common image of teaching comparing teaching to parenting.

- Robin talks about teacher's role as a "second parent": "My main goal (as a teacher) would be that if there are children in the class who have problems, that I would somehow help them out with the problems. If a child is very shy, or if a child has a fear, or a child who has attention deficit hyperactivity disorder. And kids that have problems at home, I hope to be a good person and make them feel comfortable coming to me."
- Jenny refers to her teachers in the program for gifted students as "very warm and kind of maternal figures."
- Dick mentions a male teacher who is his role model of a father, and he also hopes to be doing the same to some of his future students, basing his motivation to teach on an extremely egocentric viewpoint : "I want to see another one of me. And I just want to give him the reassurance that the world is there for people like him."

While the previous examples illustrate the notion of teaching as primarily parenting, Carrie has a different perspective. She considers that the parenting role of teaching hinders teacher's ability to contribute to students' learning: "The teachers really don't have time to teach because they are so busy being mom and dad. With both parents out in the work force and with kids spending a lot of time in day care, the teachers end up in the role of parents. I do think so, from what I've seen anyway. Today when I was in school and the principal was helping me move a table in the hallway and the Special Ed. teacher was standing in front of boys room saying, 'Have you peed yet, have you peed? Come on, let's get moving.' And he (the principal) just said to me, 'Did you ever think it would come out that far? Did you ever think a teacher would have to do that?' And you end up dealing with a lot of kid's emotional baggage. "

In all previous examples, parenting refers primarily to teachers who respond to children's emotional needs. Similarly, other participants remark that teaching is caring.

- Helen wants to be remembered by her students as, "someone who really cares about them. (Someone who cares for) things that are going on in their lives and what they are learning."
- Diane hopes to care for her students "by showing them that you want to hug them."

Teaching as Responsibility for Student Learning

The overarching image of teaching mentioned explicitly by thirteen out of fifteen participants is one of "motivating children to learn." It is also expressed through a number of metaphors like "turning the kids on," "having the light go on," "enthusing children," or "sparking the learning." Within this notion of teaching, there are several images that provide insight into how teachers teach effectively.

Teaching as Making Learning Fun

The notion of teaching as making learning fun is mentioned explicitly by more than half of the respondents. The teacher is represented as an entertainer or performer, while learning is viewed as effortless and enjoyable activity in which children are often not aware that they are learning.

- Peggy: "I would like to be a kind of teacher that students learn things from, but are not forced to sit and struggle. (I want them to describe me) as fun, exciting. Having funny things to do because kids want that fun."
- Erin: "I think in my classroom I want them (the students) to be learning but not really knowing that they are learning. I want them to look at me as someone who is fun. I think when they leave the classroom they won't realize that they learned it but maybe ten years later they will. ... I think that teaching has to be something that you enjoy. A teacher has to enjoy teaching and the student has to enjoy learning."

- Jill: " I think that a lot of people believe that if you're having fun, you're not learning. Learning to me is fun and it shouldn't be a task without fun. So I would like that they (the students) remember that they were leaning but that they didn't realize that they were learning since it was fun."

Teaching as Knowing and Understanding Children

The image of teaching as understanding children is noted by eight participants. In order to understand children, the teacher needs to know them well. Understanding children is viewed as conducive to learning.

- Helen: "I want to have small class because I want to know my kids. I want to know what's going to turn them on. ... To get into each one's brain and see what's going to get them to learn, what's going to move them to learn about their world."
- Emily: "(A teacher has to) try to find as many ways of reaching the kids around the topics that are important to them at the time."
- Maria: "And the teacher has to be very understanding. If a kid is acting out it is not because they want it. There are so many reasons like problems at home, or they are bored in the classroom because they know more than is being taught."

Teaching as Transmission of Knowledge

The vast majority of respondents (13 out of 15) refers to teaching as "providing information," "conveying a certain amount of information," "sharing knowledge and ideas with students" or "passing on the knowledge to the kids." As an illustration, Erin defines teaching as "just providing information to the student."

While teaching as transmission usually refers to transmitting scientific knowledge, some participants focus on transmission of beliefs, values, and morals. For example, Julia

considers teaching a means of "developing opinions and morals," and she also considers a teacher a "guardian of beliefs and morals."

A few respondents acknowledge that transmission of knowledge as a two way interaction. They use the term "sharing" to emphasize that both the students and the teacher learn. Dick says: "Teaching to me means sharing ideas and concepts that may not be familiar to someone else. That's all. It's very simple, it's saying that there is a lot in this world that you may not know, that you may learn. So teaching is sharing what I know with you. ... It's sharing what one person knows. The power of it is that more often than not, the teachers tend to know more than students. ... And any teacher in my mind, any person that calls himself/herself a teacher understands that sharing goes both ways. That you always learn from the students. If I ever get to the point that I don't think there is anything else I can learn, I should not be around."

Several participants focus on teaching as conveying new information or new ways of thinking and they use the metaphors of teaching as "expanding kids worlds" or "expanding kids minds." Here are some examples.

- Diane: "(Teaching is) introducing different ideas, theories, and just new information to them (the students). ... I think teaching is showing, introducing new ideas to people."
- Robin: "Teaching is getting kids learn the knowledge and at the same time helping them experience things that they can't normally do every day. Bringing them things that they can't see. Expanding kids' minds."

An important aspect of teaching, according to several respondents, is that of helping students to understand the information and eliminate confusion.

- Leah: "Teaching is, if you are a professional and if you are doing your job correctly, teaching is when your students have a complete and unconfused, clear view about whatever concept they are supposed to be learning."
- Diane: "(Teaching is to) make them (the students) understand new ideas. ... It is introducing new ideas so that people understand them."

Teaching as Raising Awareness of Existing Knowledge

There are a few images of teaching that differ from the notion of teaching as transmission of knowledge. Maria is unique in her view that teaching connotes raising critical awareness about already existing knowledge rather than introducing radically new concepts. [Interview question: "What does the word teaching mean to you now?"] "Now it means teaching someone something they don't know. But they know it, they just have a computer in their heads, and they haven't analyzed it yet. They just haven't thought about it yet, they just need to find reasons. It's just letting them see the reasons for something they know. Becoming aware of something they know but haven't analyzed yet."

Teaching as Helping Children Construct Knowledge

This image of teaching focuses on students' capacity to make sense or interpret their experience, while the teacher is viewed as an aid who enhances children's curiosity and fosters self-initiated learning.

- Helen talks about teaching as helping children discover knowledge: "(Teaching is) coming up with interesting, exciting things to do. And it doesn't mean rote memorization. It doesn't mean you copy it (the answer) and it becomes the right one. ... It means setting up some kind of experiment, some activity, and watching what happens from it. I am going to try it without assuming that the outcome is going to be the same every time. In fact I think I am going to enjoy when it comes out differently because it

means kids have discovered something else. ... I think of them (kids) as little scientists."

- Jenny describes teaching as providing resources for self-initiated learning: "I think the most important part of teaching is empowering children to learn for themselves. The role of the teacher is to choose the right materials for these children in order for them to learn for themselves how to interact with the world. Someone who is there and who is open to take questions and to respect different ways of looking at things and to help guide kids to teach them how to find things for themselves. ... And teaching is being able to focus on what children are interested in and how they individually assimilate new information, and providing the materials to make it happen."
- Carrie expresses a similar viewpoint: "(Teaching means) to convey the motivation and desire to the students to seek more information. To be there for their questions but not necessarily to give them the answers, but to ask them questions. In doing so to lead them to where they might find their answers. But to motivate them to have questions to ask."

Discussion

The main components of teaching for entering preservice teachers are responsibility for student well-being and responsibility for student learning. Two images of teaching — as enhancing self esteem and as parenting — illustrate the first component, while five images — making learning fun, knowing and understanding kids, transmission of knowledge, raising awareness of existing knowledge, and construction of knowledge — illustrate the second component of teaching.

The first image equates teaching with enhancing self-esteem. In all examples of this image of teaching, positive self-esteem is viewed as a prerequisite for acquiring new knowledge, not as a consequence of learning.

The notion of teaching as parenting has been documented in other research studies as well (Arbab 1995, Bullough 1991). This image contributes to entering preservice teachers' confidence in their ability to be good teachers. Since they decided to become teachers because they love interacting with children, they assume they will be able to care well for their students.

It is important to point out that making learning fun could be conceptualized as making it interesting and challenging, but in most participants' accounts of this image "fun" is equated with "enjoyable" and "easy".

The perception of teaching as transmission of knowledge is also referred to in the literature as *telling* (Bullough 1991, McDiarmid 1992), and it emphasizes the transmission of information from the teacher to the students. This image of teaching is based on the assumption that knowledge is an objective entity residing outside the learners, or in other words a sum of facts the students need to become acquainted with. It is contradictory to subjective knowers' beliefs about the learner as the source of knowledge.

Two dominant images of teaching as transmission of knowledge, and helping children construct knowledge derived from the interviews, are fundamentally different since they originate from two different assumptions about the sources of knowledge. If teaching is defined as transmission of knowledge, or in other words if teaching is telling, than learning is listening and it is important for the teacher to provide the environment where all students can listen. Therefore many respondents who adhere to this image of teaching are focused on the importance of teacher's control over the class. This image of teaching has also been reinforced through most of their school experience.

For those who envision teaching as primarily guiding children towards their own knowledge and discoveries, the priority is the teacher's ability to listen to each student in order to help the student in her/his exploration. This image is significant in participants' visions of themselves as teachers. However, since many of them are not able relate this image to real classrooms, this vision is not firmly grounded for most respondents and therefore it might be easily abandoned once they experience the reality of the classroom life.

Despite their fundamental differences, these two notions of teaching are not exclusive. They illuminate the paradoxical nature of teaching that cannot be adequately described by either of these images alone. Most participants express their notions of teaching and learning as containing both of these images side by side. They are struggling to reconcile these two images of teaching and learning — the old image of learning as absorbing the information from the teacher and the new image, reiterated in the teacher education program, of learning as constructing knowledge — trying to develop a single coherent idea about teaching. Although many of their images and metaphors appear to be constructivist, when asked to elaborate on the meaning of those images some participants reveal a more traditional views of teaching as transmission of knowledge behind the new metaphors of guiding or facilitating the learning.

Instead of a traditional image of learning as hard work and struggle, the new image emerging from these answers is that learning should be easy and enjoyable if the teacher chooses interesting and exciting materials and approaches. The issue with this view — based on the assumption that learning is fun if it is novel, easy, and amusing, and therefore equating teaching with entertaining — is that it simplifies the learning process into an effortless activity, and makes immediate gratification as a criterion for evaluating teaching. However, learning seems to include both "having funny things to do" and "sitting and struggling". It might include engagement in hands-on activities, but also reflection,

deliberation, and struggle with finding the answers, or posing meaningful questions. Entering preservice teachers in this sample struggle with this paradoxical nature of learning and teaching.

Theme 3: Towards the Image of Self as a Teacher

The professional identity of teachers develops through a dynamic process that continues throughout their formal education and active teaching career. Personal statements and interviews with future teachers as they enter teacher education provide an insight into one particular phase of that process. In this period, they have definite ideas about what kind of teachers they want or don't want to be, but at the same time many are still struggling to define their own identities as teachers. To elaborate on entering preservice teachers' developing professional identities, this section focuses on their thinking about themselves as teachers in the past and at the present time, and their ideals of themselves as teachers in the future.

Factors in Choosing Teaching as a Career

Childhood Influences

Some research studies indicate that birth status plays a role in choosing teaching as a profession, noticing that a disproportionate percentage of teachers are the oldest siblings in the family. In this sample 7 respondents are the oldest children, 6 are the youngest siblings, and 2 grew up as middle children in their families. None of the 15 participants in the study grew up as a single child in a family.

One third of respondents have some members in their extended family who chose teaching as a career, and all participants could identify family members who are good teachers, if "teaching" is considered in a broad sense, not only limited to teaching in school.

More than half of respondents comment that they cared for their siblings or neighborhood children as they were growing up, and five participants explicitly mention that they have wanted to be teacher since childhood.

- Jenny: "I've always wanted to be a teacher because I love children. Even when I was 6 years old and I had all the little babies in my family, I was always around children and I took it upon myself being a teacher, whether they liked it or not."
- Leah: "Always since I was little I told my mom that I want to be a teacher because she was a teacher and my great-aunt was a teacher and my uncle was a teacher."
- Heidy: "I used to take care of my sister, and I was like the oldest child in the neighborhood. And I was always taking care of other kids. We would play school and I was a teacher. ... I always liked teaching and playing with kids like that."
- Robin: "I think my parents always knew and my friends knew that I was going to go into teaching. Because of how much I love kids. ... And even in my old neighborhood I was the oldest kid in the block and I loved it. It was like I was in charge of the kids."

Early influences are an important factor in choosing teaching as a career for a significant portion of this sample of entering preservice teachers.

Teaching Opportunities in High School and College

While some participants decided early on in life that they want to become teachers and their subsequent teaching experiences strengthened their previous choice, for others the teaching experiences they had in high school or college were crucial for their career decision. They discovered their talents and skills with children as well as the enjoyment and satisfaction this kind of work provided.

- Theresa: "At first, over the years, I did not know why I want to be a teacher. Others kept telling me: 'You should go into teaching. That's your field.' But I was like I want to be this, this, this. And over the years as I was able to help my mom teach, and doing nursery in the church, and helping with certain programs, baby-sitting, you get more comfortable. I think it wasn't until last fall when I did my practicum, and I did it every day, and I began to see how good I am, what talents I do have. So I think that's the point when I began to realize that this is a gift, because I was able to see myself with
- children every day."
- Robin: "After working the whole year with the preschool children (in high school), it fulfilled me. And the following year I worked in an elementary school class. I was walking around, 17- or 18-year-old walking around my own school as a teacher. I felt like I belong there. I felt a part of it. ... And I got a great reviews about my teaching (from the child study teachers in high school). They made me feel good if I did something."
- Erin: "As seniors in high school, we ran a preschool that was a half-day thing in our school. I took that class and I never had so much fun in my life. ... I never enjoyed a class more than that class. Plus that during summer I have all my little cousins, they are all over me all summer, so I had a lot of experience with little kids, not necessarily in the classroom, and I always loved them. And I loved the teaching."
- Jenny: "Working in this day-care center (in college) is probably the single most significant learning experience of my life. ... All of the day care teachers I had were literally just baby-sitters. They did not interact with children, they made sure that the kids were in one piece when the parents came to pick them up. I don't think they liked children that much. I knew I wanted to work with very young children, I was taking child psychology and I was interested in children. But not until I worked here I realized that you can talk about issues of multiculturalism, you can make them (children) have a very non-biased kind of experimental view of the world where they want to go out and

try to figure things out for themselves rather than judging things on the surface level. One of the teachers I worked with had incredible faith in me. And she really wants to help me find my way in this field. She really makes me feel affirmed. ... She is such an incredibly creative, talented, and brilliant person. I learned more from her than from anybody else at this college. "

- Diane: " As a senior I had a class in childhood education in the school and we worked in preschool and the stuff like that. So I thought I could be a teacher."

Dick is atypical for this sample since he made a career choice without having much prior experience with children. "I got into pre-education (at the university). My choice. There was a club in my high school, The Future Teachers of America, and I never laid an eye on that club. And there was nothing in my high school (that geared me towards teaching). It was something that was in the back of my head that I acquired somewhere that I didn't have definite thoughts that I am going to this. I sent in my application with an idea of getting in the School of Education."

Other Factors

Some respondents came back to teaching — that was their early choice — after they had pursued other career options. For example, Peggy comments: "I was thinking that I know I can deal with kids. Even when I was a little girl I always had a chalkboard and young kids around, I always enjoyed it. ... I hated business (my former major)."

Many respondents tried other career paths and came to teaching because they were dissatisfied with other options, or were not able to pursue the option of their choice.

- Erin: "My whole life I wanted to be an actor. And when I realized how hard it is going to be, I realized I have to do something else. And one other thing I can think about doing for the rest of my life is to work with children."

- Helen: "At the university I had a hard time being an art major and I was disappointed and I basically did not fit in that school at all. ... And at the same time I had a job in a lab school, and there were people I could talk to. What I liked best was that I found my niche where I fit in. And I started taking education classes and I enjoyed them."
- Jenny: "When I was writing seriously I felt like I had a calling to do that, but at the same time I never quite felt secure enough about my own writing talents to want to rely on them as a career. I had a very romantic notion of the starving artist who just wants to devote her life to writing. But during that year when I was waiting tables and realized what the real world is like, I felt like writing is something I can always do on the side but I became more focused on how am I going to make a decent living with something I am really happy doing. When I started teaching I realized that this is something that can be a real career, something that takes a lot of training and knowledge and education in college."
- Julia: "The main reason (I want to go into teaching) is because I had behind the desk jobs. I used to work for an insurance company, and sitting by the computer and by the desk all day is not the kind of job I want to have."
- Diane: "Actually I wanted to be a nurse, but I don't think I am competent enough, and I was not good in math and sciences. So I kind of got discouraged from that idea. ... And as a senior I had a class in childhood education in the school and we worked in preschool. So I thought I could be a teacher."
- Maria: "I really wanted to be a doctor ... but I knew that with the baby it's going to be really hard because you have to go to school for 8 years, and then I decided on physical therapy, ... but the competition is really tough. Then I decided on nursing, but nursing takes four years."

Discussion

Both childhood influences and teaching experiences in high school or college were significant for participants' decision to choose teaching as a career. Some respondents found their "niche" as teachers after they tried other career options, while the others chose teaching solely by eliminating the career choices they could not pursue further. This negative selection would remain a significant factor in choosing teaching as a profession as long as more students are not attracted to teacher education programs.

Preservice Teachers' Ideals and Visions of Their Own Teaching

Preferred Teaching Environments

The first finding about participants' visions of themselves as teachers relates to the type of community or school in which they would prefer to teach. Most of them want to teach in either suburban or rural communities that they described as middle class, geographically close and similar to the communities they grew up in. These are some typical responses:

- Erin: "I think I want to work in a middle-class classroom. In the middle-class area that is not really city, not rural. Suburban type area."
- Julia: "I would, I guess, look at a middle-class community like the one I grew up in."
- Helen: "I would like to stay in this area because there is a lot of things going on in the community. There is a big, strong community. Everybody seems to know everybody else and everybody I've met seems to be extremely nice, open with their ideas. It's also multicultural. ... But it's also nice because most of the people around here are not terribly poor, and as far as I know there is no gang warfare. And that's the kind of stuff that I want to stay away from."

Only two respondents comment that it does not matter which kind of community they teach in, while most of the others mention explicitly that do not want to teach in a city. Only one participant acknowledges the importance of teaching in cities but still prefers not to do it. Jill comments: "I would prefer working with rural kids. Which is funny because I think it's a lot more important to work with urban kids, but I would say rural. The ideal is rural. And probably a small rural community."

Ideal of Self as a Teacher

Participants' ideals of themselves as teachers reflect their personal values, and psychological needs, as well as their collective ideas about what constitutes good teaching. The most common theme in their visions of themselves as teachers, mentioned by 9 out of 15 respondents, is that they want to be fun teachers. The notion of "fun" is equated with entertaining and enjoyable for the students. It is described as "students not knowing that they are learning" (Erin , Jill), "students not being forced to sit and struggle"(Peggy), or "funny"(Maria).

The other theme, mentioned by 6 out of 15 respondents, is their vision of themselves as effective teachers. They want to "push children as far as they can"(Helen), "teach everybody on their level"(Leah), "reach each child"(Heidy), or "give them as much knowledge as possible"(Maria).

Five participants mention that they want to be creative teachers. Most of them refer to creativity as it relates to the ways the teacher presents the material, not to encouraging student participation, or developing different types of learning experiences.

Another common theme, mentioned by 5 preservice teachers, is their vision of themselves fair teachers. Fair is understood as treating everyone equally, without favoring any particular student, or as not being biased against some students.

Participants' perspectives are often egocentric, focusing on what they themselves missed as learners in school. They hope that they would compensate for it when they become teachers.

- For example, Erin wants to be a teacher her students would remember by name, as well as by fun activities and learning that will go on in her class. As a learner in school she was always in the middle, "an average student," and she was rarely distinguished or remembered by her teachers.
- Dick also missed the personal encouragement from his teachers and therefore he comments that his ideal of himself as a teacher is to give his students "the reassurance that the world is there for people like them."

Self as an Agent of Change in School

Another theme relates to participants visions of themselves as agents of change in future schools. Twelve out of fifteen respondents want to change some features of how children are educated in school. While most of them consider only changes within their own classrooms, some think of changes on the level of school or even broader level of a school system. Some examples of changes they want to implement in schools include:

- Dick: "I think what is missing is the emphasis on higher order thinking skills. I think it makes a person more intelligent. It is tied to problem solving and being able to adapt. ... I would do more problem solving within the classroom. Even determining class decorum is problem solving."
- Theresa: ["Would you like to implement some changes in school as a teacher?"] "Yes, (I would like to be) more understanding of kids. Not assuming that kids who can not

read and write are dumb. I would apply what I've learned about disabilities. I would give those children prizes, good comments, positive reinforcement. So that they are more eager to learn."

- Helen: "I would like to make school a lot less white, male, traditional in terms of teaching those values. ... I've been reading Howard Gardner so I've been thinking a lot about that. If the school focuses less on math and more on different kinds of vocations, different things you can do in the community, different jobs you can hold. And finding something that a kid likes and has an aptitude for, and making it a valued thing. (I would do it) by giving a lot more hands-on activities, by going out in the community. I am not going to have worksheets about division. I want to have a lot of blocks and hands-on stuff. I want to make everything less of a sit-down thing and more of let's get together and solve these problems together."

Many respondents are tentative or doubtful about their potential to influence the current circumstances in schools, as teachers.

- Leah is very explicit about that: "There is nothing you can change as a teacher except some things in your own classroom. If you are just a teacher you really do not have power in school, unless you are a department chair or something. "
- Jill is uncertain about the changes she could implement in her own class, since she recognizes that those changes might affect the students' subsequent academic success: "I would like to slow down the pace, and place the importance on the individual and on the whole person instead of pure academics." ["How would you do that?"] "It depends on what the principal would say (laughs). I would pay attention to learning styles and speeds and try to know each child." ["What if the principal is not convinced that's the right thing?"] "I would try to convince him. I am aware that the students can have problems with the next grade if you slow down."

Only few respondents like Carrie focus on changes on the societal level: "The thing is student to teacher ratio. It's important to have one-on-one attention. Ideally I would want to see 7:1 ratio. Kids would get more individual attention, more chances to work on their own pace. I would do it by changing the base that funds education from property based tax to sales tax or income tax."

Perceived Problems of Teachers

There are several themes that relate to participants' perceptions of problems teachers face. The primary problem of teachers from participants' perspective is the breakdown of the family, violence and child abuse, and by and large children's emotional problems that obstruct their learning.

- Leah: "I think the greatest problem that teachers encounter is to understand the world from children's perspective. A child may have just lost a parent due to divorce, or maybe there is some kind of domestic violence going on. They are on welfare, the father is an abuser of alcohol or drug or something, and anything that's going to cause the emotions that will hinder the learning."
- Theresa: "I think it is getting harder (to teach) for our generation because we have more problems. I think of family breakdown."
- Dick: "The effect of the essential breakdown of the family in our society is a tremendous problem. Especially if there is a degree of communication that goes on. You can not have a writing class in which a student writes about the parental breakup or divorce and not address it. Or if a student saw a buddy killed in a drug crime. There are a lot more problems out there than I think we have time in school."
- Emily: "I don't know if there are more problems than there were before, but they are more talked about. Abuse and neglect or stuff like that. Kids are more needy in some ways. Kids have to be comfortable physically and if they are miserable in life it's hard to get them excited about what is going on in the classroom."

Problems with parents are mentioned almost as frequently. Concerns about parents range from pragmatic to ideological.

- Erin: ["What do you think are the main problems teachers encounter?"] "Dealing with parents, because the parents just want the best for the child and since they are not in the classroom they can't tell if the teacher is providing the best for the child. But even if they are, the child may go home and say something to the parents that can make them believe that they are not providing the best. ... I don't like them (parents) looking at me as someone who is not meeting their expectations. Because they are the people who will call my boss and I could get fired."
- Helen: "I have been learning that some parents have real hostility at teachers. And I don't understand why. If you are going to be critical of a person's child than I understand a parent could be mad at you. But I hope that if there is other criticism, that a parent accepts it and tries to work with it."
- Theresa: ["What do you think are the problems teachers encounter?"] "Parents who don't want to work with the teacher or with the kid. Not being appreciated for the things you do. Having difficulties with the children and realizing that it's not the child's fault, that it might be the parents bringing up this result."
- Emily: "If you take parents like me and those parents who have different philosophies and expectations, that's I'm sure is going to be a challenge. How to present your ideas to at least, if not make everybody happy, but to satisfy them."

Some other perceived problems teachers face according to participants are: classroom management, money/pay, lack of resources, lack of freedom/autonomy with the curriculum, and lack of recognition and respect for teaching profession.

Summary

The findings of this study confirm previous research findings with larger samples of preservice teachers (Zimpher 1989, Goodlad 1990), that most preservice teachers want to get a job locally and teach middle class children of average ability.

There is a disparity between preservice teachers' idea of teaching as entertainment and their account of themselves as learners in school where they learned the best when the teachers were challenging and thought-provoking. This disparity can partly be accounted for by participants' wish to be liked by their students, and their insecurity about how children would respond to their teaching.

It is also important to note that if "fun teaching" is equated with "entertaining or otherwise unforgettable manner of presenting the material" (Mundt 1995), it is based on the underlying image of teaching as the transmission of knowledge from the teacher to the students. On the other hand, it is also possible to conceptualize "fun teachers" as those who actively engage students in the learning process by encouraging them to problem solve and discover their own answers, and to share their own perspectives and ideas; or in other words, to conceptualize "fun teachers" as catalysts for learning.

The notion of the effective teacher is also based on the traditional view of teaching as transmission of knowledge from the teacher to the students and therefore on the quantity of transmitted knowledge as a measure of teacher's effectiveness.

The four themes: "fun teacher", "effective teacher", "creative teacher", and "fair teacher" are the ideals participants hope to reach as teachers. When they think about their ideals they sometimes simplify these themes to the extremes. For example, the "fun teacher" is viewed as "funny", the "effective teacher" as "finding a way that everyone can enjoy the

same thing in the same way"(Peggy), the "creative teacher" as "trying to do a brand new thing every day"(Leah), and the "fair teacher" as losing subjectivity and treating all students like they were the same. These themes might become the "myths of teaching" when they are viewed in these extreme and simplified forms that dismiss of the complexities of teaching.

It is also significant that regardless of the words that are used to describe teaching as guiding or motivating, which might suggest that teachers are perceived as catalysts for learning, the traditional perception of the teacher as a disseminator of knowledge still prevails for the majority of entering preservice teachers in this sample. The only modification from the traditional image of teaching is that most respondents envision themselves as not only effective but also entertaining and creative in transmission of knowledge.

Although they have relevant ideas about changing some aspects of education, most participants lack both self-confidence and knowledge about how to implement these changes.

The findings about problems they expect to face as teachers contradict Fuller's (1969) model of developmental concerns. According to Fuller (1969) preservice teachers first develop concerns about own adequacy as teachers, and then later on in their teacher education, during their practica and student teaching experience, they focus more on their own teaching performance, and finally on students' learning. Entering preservice teachers in this sample are concerned about all three of these domains.

Respondents are optimistic that the problems teachers encounter are solvable at least at the individual level. They focus on the individual level and believe in their own skills and abilities to address these problems.

Interplay between Epistemology and Teaching

One of the hypotheses guiding this study is that epistemological positions or beliefs about oneself as a learner are correlated with one's notions of teaching. Belenky, Bond & Weinstock (1997) analyzed mother's epistemologies and documented a strong correlation between epistemological positions and personal child development theories as well as mothering strategies. Analogously, in the following section I would try to illustrate the relation between beliefs and theories of oneself as a learner and the images of teachers and teaching, and the consequences of this relationship to the teaching strategies, orientations, and priorities of several participants in this study.

The biggest group among the "ways of knowing" in this sample are subjective knowers, followed by received knowers. I chose three respondents whose profiles are presented and discussed in this section. Maria is a received knower, Peggy is a subjectivist, and Jenny stands out in this sample as the only constructivist. The purpose of this section is to describe the relationship between participants' epistemological positions and their views on teaching. The profiles open with participants' perceptions of themselves at the time they were growing up in their families, in order to provide rich contextual descriptions.

Maria: Received Knowing

Maria (20) grew up in a tight middle class family as the oldest of three siblings. She remembers her family as being "very normal." She was proud of the fact that her family was "normal" while many of her friends had divorced parents. During her

adolescence when her parents got divorced, Maria and her siblings stayed with her mom, and they eventually moved to the geographic area close to the university. Her mother was always very involved in her schooling, and she worked in her elementary school and later in her high school. Maria describes her mother as warm and controlling. Maria went to a private religious elementary school and high school. Asked if there were some good teachers in her family, Maria mentions her aunt who has been an English teacher and who often talked to her and brought her books when she started elementary school. Maria used to read a lot. However, she is not doing it any more since she doesn't have time for reading. She also mentions her mother as a good teacher: "My mom is the best teacher because she doesn't just teach you, she lives what she teaches. Not that I want to look like her, but she has been divorced for 5 years and she had male friends but she does not sleep in other houses. Because she wants to teach us that we are ladies, so we should behave like ladies. In that sense she is a really good teacher."

At the time of our interviews Maria lives with her boyfriend and her child. She is going through what she describes as a hectic time in her relationship with her boyfriend, and she is questioning her parenting strategies as well. She describes herself as "all shaky." She uses a number of negative attributes to characterize herself: "I have no taste in clothes, or music. ... And I don't have a lot of friends right now, and I don't know why. I am not anti-social. I need friends and I just don't have time for friends. I come home at 7.30 and I need to put my child to bed. That's not good because you need friends. I love to talk, so I need friends, but it is very hard to make friends. It's very hard. ... I am like an old lady now. A little resigned to whatever comes next. " Establishing friendships has not been easy at the large university: "I didn't have two classes with anybody and if you don't live on campus, you are not in."

Thinking about good teachers, she recalls her 7th grade biology teacher who was handsome, and Maria's way to stand out in his class was to get the best grades. She also recalls another good teacher in whose class she learned a lot. She was motivated by fear, since the teacher was very strict.

Maria has always wanted to be a doctor and she likes to take care of people and to help them. She gave up her desire to become a physician since she perceived it would be hard to accomplish it with a child. She was also not admitted into the a program for physical therapists, and there were obstacles for pursuing nursing as a career. Teaching is her latest choice since, among other things, she likes some of the perks like summers and holidays off. She also hopes that teaching would help her gain more patience with her child, since some other teachers she knows are very patient.

Maria defines a good teacher as somebody who is respected and who sets clear boundaries. She also mentions that a good teacher is somebody who is open to take in and give out ideas.

Maria's views reflect her image of teaching as transmission of knowledge: "I find it very rewarding when I can teach someone something I have learned. I love it and I just keep going, and I want to explain it in four different ways. I've never thought about it before, but I'm very much into it, telling somebody what I've learned." Since second grade, when Maria was fascinated with a science experiment she did in school, she loved science. Apart from transmission of knowledge, she also defines teaching as helping student become aware of "something they know but haven't analyzed yet."

Characteristically for a received knower, Maria relies on the outside sources of knowledge about teaching and not on her own insights: "I used to think that the school

provided you with a schedule of what you are going to do, but it's not like that. You have to make it up. So I think I'll go to my boyfriend's mom who is a teacher, and I would also go to my professor. And for her class I'll make a resource file. I'll get a thick notebook and I am going to put in there all the things I see in my practicum, and apply them to my classroom. Because I am not too creative, I don't even know how to decorate my house."

Contrary to her own recollections of good teachers as strict, Maria also mentions that good teachers are like friends, and guides. Nevertheless, in her summer camp experience she found out that the friendly approach did not work for her: "I realized that I should be a little stronger. I started and said: 'I want to be your friend'. And that is not the first approach you should take. You first let them know who is the boss. Then you can be nice. I had an example of a teacher in that camp. She would never get too close to the kids, she would always keep a boundary between herself and the kids. Because otherwise kids would take advantage of her."

She perceives the roles of the teacher as providing a safe environment, understanding students, and keeping them busy and excited about learning. She wants to be an energetic teacher but doubts that she will succeed in that, and she hopes that her students would perceive her as knowledgeable and nice. Her main goal will be to give them as much knowledge as she can.

Maria wants to implement some changes in school, allowing more play time, integrating the curriculum areas, and setting up different rooms for arts and science: "Well, I guess I'll have to talk to staff and see what funds are available. And also show them how good play is for the kids, and how they can change the way that they learn by doing math while reading and by reading while doing math. So just try those things out and see the kid's opinion. And if the teachers don't believe in this, then I don't know how you can make

them see. Maybe some statistics, and doing studies to see if they learn more and under what conditions."

Peggy: Subjective Knowing

Peggy (20) grew up as a middle child in a family. Looking back at her childhood, Peggy describes herself as a brat who always got what she wanted. She had a very close relationship with her father who always supported her decisions. She liked children even at the early age. She had a lot of baby-sitting experience and she helped kids in her neighborhood with school. Peggy describes herself now as easy going, laid back, understanding, and caring. This is how he defines her strong areas: "I am a logical thinker. I am very good at math. And I am very good with children. If there is a child around I would always be interested in what this child is doing, how the child is thinking. So I think I am good with children and a lot of people tell me that too, so it helps." Despite her strength in math, she mentions that she does not consider herself intelligent in that area. Peggy enjoyed school and she never had problems with school. The part of schooling she liked most was socializing with her friends. Academically she considers herself capable of mastering any material: "I was always able to do things for myself. And if I did not understand something when I would look at that problem, I could always go back in the book and find it."

Peggy wanted to be a teacher since she was a child: "I always played school when I was little. I had a chalkboard. Since teachers had books I played with books. And then something happened in my senior year in high school and I felt I wanted to do something else. I don't know if it was because of money reasons, but later on when I found out that I hate business I realized that teaching is what I always wanted to do. So I learned to stick with what I believed I always wanted to do." It is interesting to note that despite her early

recognition that books were important for teachers, Peggy also mentions that reading was never important to her.

She does not believe in "right" and "wrong" answers. For Peggy "an opinion is an opinion and everyone is entitled to their own opinion." She believes there is more than one right answer to a question. To find out what is right or true she depends on her beliefs and "gut feelings". Similarly, when asked how she knows what is good teaching, she says: "You don't. I don't think there is any way to know that. Every teacher is different. Every teacher has their own ways of going about teaching."

But as a student, this is how she assesses a teacher: "If I came out of the class understanding or having an idea of what went on that day most of the time, that I would say is a good teacher. If the majority of the students don't know what's going on and don't know what they are doing, than maybe the teacher is not a bad teacher, but the way they are going about teaching the materials is not a good way." Peggy liked the classes that were small and personal, where a teacher knew students' names and something about them. "Good teachers I had were able to relate to us and to understand what we were asking, and sympathize with us. And they cared about us not only academically but socially as well."

Peggy's notions of teaching revolve about learning something new and teacher's sensitivity to student's self-esteem: "I don't think there is one constant definition of teaching. But you teach someone to go away learning something and understanding what they learned, understanding what the content means. ... Teacher is someone sensitive in a way to help you learn. Even if you don't go away learning something, you walk away feeling confident, not feeling 'I am a failure'. Just having confidence even if you don't accomplish something. So teaching is going in and coming out with something new. A different way of thinking about it. "

She wants to be a "fun and exciting teacher", able to teach without forcing the students to "sit and struggle." She also wants to be respected as a teacher: "I want to be the kind of teacher that children would respect. (I want them to describe me) as fun, exciting. Funny things to do because kids want that fun. I like them to describe me as enjoying being in my company." However, her friendship with children is perceived in conflict with her authority as a teacher, as she struggles to envision herself in her future role: "I think it is easier to relate to kids when it is more of an easy going relationship. If they see me as a teacher it would be more stressful, I think. I don't see myself as a teacher yet. I see myself as a learning teacher. ... I want kids to think of me as an authority figure, but not in a sense that it stands in a way of our relationship."

Peggy is tentative about her perception of her ability to change some things in school or in her own classroom, but she is determined not to teach in a school where teachers yell at children.

Jenny: Constructive Knowing

Jenny (21) grew up with her mother and her stepfather since her parents divorced when she was very young. Her mother has been a manic depressive. The illness was not a significant problem in her early childhood, but during adolescence Jenny lived in a very unstable home environment. She didn't know what would happen from day to day. Her mother would occasionally get violent. When Jenny was fifteen, her mother had a break-down and she was hospitalized. It was a hard time for Jenny who wanted to help her mother to improve her health. On the other hand, she was "kind of terrified by her." After that event, her mother enrolled in school again and started to recover. At the time of the interview, Jenny considers her mother one of her best friends, but she feels as if her mother has been growing up with her.

Jenny mentions that she has always been close and alike to her father. She spent some time with him in the summers. One issue that drove them apart temporarily was that he could not understand why she didn't want to come and live with him at the time the when her mother's condition was really bad. But she felt responsible for her younger sister, and she considered her mother's household as her home. She also describes her father as a good teacher since they have explored things together and while having fun "he would notice subtle things that would turn out to be important". Another good teacher in her family has been her aunt who is attuned to what is interesting for children. Jenny herself always liked the company of her younger relatives as she is the oldest child in the extended family. She says: "I was always around children and I took it upon myself to be their teacher whether they liked it or not."

Jenny describes her stepfather as the nicest person she has ever met. The only regret she has about him is that he didn't have any say in what she was allowed to do, because her mother didn't want to share parental responsibilities with him. Jenny feels lucky to have him in her life. Another important role model for her was her maternal grandmother, who was the matriarch of the family. She had very little formal education, but she ran a business successfully and helped support Jenny's family in the times of trouble.

Jenny has rarely felt challenged in school. The only real challenge now in college is the amount of work, as well as the struggle to motivate herself to do the work. She considers herself intelligent but unmotivated. Jenny took a year off after high school, before she went to college. During that time she worked as a waitress. She also got pregnant and had a miscarriage. That was a cathartic experience after which she felt more secure and able to control her life.

The college she attends has a significant impact on her: "It is a very strange school. It really does teach you to think. Here they want you to come away not so much with material, with information that you memorized, but just with a way of approaching different problems that you come up with in real world. And you are very adaptable because you learn how to figure things up by yourself and teach yourself. This college is important because there were times when I really created the (academic) discipline, that I would not get at another university where things are set up for you and you do them, and it's very cut and dry. It makes decision making a lot easier because things are set up for you. But I don't know if I would be as enthused about finishing school if I was going to some place where I would not have as much freedom to choose what I was interested in. The professors here have a lot of respect for what students are interested in and what they want for themselves. This college really does change the way you think about things and the way you approach problems. I feel I can be put in any situation right now and even if I don't know anything about it I would be able to teach myself about it and learn about it."

Jenny mentions her best teacher who was warm, made her and the other students feel respected, and "had so much energy to get us where we wanted to go". It is interesting to compare it to how Jenny perceives her toddler students: "I think kids have amazing ideas. And they are at this age when they look at the world and everything is really new and at times it's hard to understand it. That's an enormous challenge and I respect them so much, but at the same time I get so many ideas about the way they look at things. I enjoy interacting with the kids so much because their minds are so amazing."

This is her definition of good teaching: "I think good teaching is going to make the child feel good about himself or herself. I think that is the most important thing. And it is going to empower children to go out and find answers on their own, to learn how to teach themselves. And learn how to find answers on their own. To approach other people and

find the ways of learning about those people other than judging them by outward appearance or something that is very superficial."

According to Jenny, these are the characteristics of good teachers: "The first thing that comes to my mind is their respect for the students and respect for their interests, and also their engagement with students. I did not feel anonymous (in their classes). I felt that someone actually knew what my interests were and where my strengths were. They were all very warm and kind of maternal figures too. They were there to advise you and they were not authoritarian at all. I could approach them with any of my daily problems and they were interested in helping. My relationship with them went much further than the classroom and all of their students felt that because we were comfortable enough to go and talk to them. Even the students who were not succeeding were still OK in their eyes."

Seeing herself as an active agent in the process of building her knowledge, Jenny is passionate about her work with children that she perceives as a continual process of learning: "I think one of the best ways to learn is to read about the philosophies of people who have a lot of experience in that field. But I try really hard not to take it at face value. I like to incorporate the things I read, and think about how they pertain to me as a teacher and what I disagree with. And how I can use some of the philosophies in my own curriculum. So I incorporate a lot of ideas together, but I think I am critical enough not to take them at face value. ... I would think that the only real way to learn, the only real way to write about a subject or study a subject, is to have all kinds of contrasting opinions with good evidence for all sides. So that you are not going to have one kind of teachers. You are going to have teachers who draw from this source or that source, or lean more heavily on one expert's philosophy than the other. And I think it's important to have people from different fields so that children get exposed to more than one type of philosophy."

Jenny hopes her students would describe her as warm, fun, and interesting: "I hope I would make them feel safe. And I hope that I would be very open so that they are never afraid to ask me anything. I hope they would feel very, very comfortable with me and loved by me."

Discussion

Maria's story exemplifies some of the problems students face in the institutions of higher education, such as feelings of alienation and low self-esteem. Maria needs help and she is aware of it, but she does not have the resources and stamina to find it. She hopes that teacher education might help her find some answers for herself as a parent. However, it is more likely that she will encounter even bigger problems once she is in her own classroom with children who will have a variety of needs. She perceives teacher education as an easier way to obtain a college degree, compared to several other career options she considered in the past.

It is interesting to hypothesize about the correlation between the "ways of knowing" and sense of self-esteem. It is possible that Maria's low self-esteem is connected to her perspective of herself as a received knower. Received knowers' self esteem could be high if they are able to memorize what the experts/professors teach. However, if professors ask the students to express their own opinions, build arguments, or discuss contradictory evidence, received knowers might not feel confident as learners.

Maria's profile illustrates the received knowers' primary concern with the transmission of knowledge. She perceives teacher education as valuable since it could help her expand her "bag of tricks" and strategies she might use in the classroom. When thinking about her own teaching, Maria relies heavily on her experiences with the teachers she knows — her college professor as well as her boyfriend's mother.

Maria wants her students to perceive herself as knowledgeable, but internally she doubts her knowledge, the same way she doubts her ability to affect change in school. When she thinks about teaching, Maria does not focus on her future students, since she is engrossed in her own "survival" as a teacher in the classroom.

She presents two very different images of good teachers. The first one is based on her personal experience as a student in school and on her experience as a camp counselor. She believes that good teachers are strict and authoritarian. She has encountered the second image in the education course she is taking at the time of the interviews. This image focuses on teachers as friends and a guides. She is struggling to reconcile these two opposing images of good teachers.

Peggy is quite typical among the preservice teachers in this sample in several aspects: she defines herself through care for others, the primary aspect of teaching for her is transmission of knowledge, and she believes the way to access the truth is through personal experience and feelings. She is exceptional in this sample in regard to her high self-esteem in math, but it is symptomatic that even in that domain she does not think of herself as intelligent. As the other subjective knowers, Peggy does not consider teacher education courses particularly important in learning to teach. She relies more on practicum experiences and on her "gut feelings."

Jenny differs from the other students in this sample in several ways. A part of her previous schooling during the elementary and high school years, involved a program for gifted students. Prior to her college experience she spent a year exploring what she wanted to do in life, and when she made a decision to apply for a college admission she had a clear notion about her goals and reasons for pursuing her undergraduate degree. She is the only

person in this sample enrolled in a small liberal arts college that emphasizes students' independence in creating their concentration and doing independent research, compared to a more typical setting at the university where students choose their majors and then follow a rather prescribed sequence of courses. She is also one of the few participants who did not grow up in the part of the country were she attends college.

Jenny has the most teaching experience among the three of them since, as a work-study student, she worked for two years as a teaching assistant in a campus day-care center, and she was a full time teacher assistant during one summer. In comparison, Maria worked as a camp counselor for one summer, while Peggy had experience baby-sitting and worked as an occasional substitute teacher in a day-care center. Overall, although she is among the younger participants, Jenny seems to have a breath of skills and talents, as well as broad knowledge base and a variety of life experiences that contribute to her epistemological reasoning.

It is revealing to compare these three women's conceptions of "good teachers". All three mention that good teachers are respected. However, the sources of respect are different. For Maria, the respect is based on students' fear and on boundaries the teacher established. Peggy hopes to be respected by doing funny things that children will enjoy. For Jenny, the respect is mutual and she respects her students, as learners, even at the age of two.

It is also interesting to compare the metaphors Maria, Peggy, and Jenny use to describe teachers. Maria perceives the teacher as a disseminator of knowledge and a "boss," but she has also acquired the new vocabulary in the teacher education program that teachers are "guides" and "friends." Peggy combines the metaphor of the teacher as a disseminator of knowledge with the metaphor of the teacher as an "aid in learning." Jenny's metaphor is

the "guide from within." These metaphors reflect their different epistemological beliefs. A teacher as a "boss" is an expert who owns the knowledge and transmits that knowledge to children. The teacher who is the "guide form within," on the other hand, listens to children, helps them to find their own answers, and to build their knowledge.

Similar connections could be made between preservice teachers' images of teaching and their epistemologies. Maria focuses primarily on teaching as transmission of knowledge. If knowledge resides outside the learners — as received knowers believe — than the way to learn is to transmit it from the teacher to the students. Although Peggy does not totally abandon this image, she places more emphasis on the centrality of enhancing self-esteem, of making learning fun, and of changing the ways children think. Subjective knowers might be prone to focus on how children feel as learners since they themselves acknowledge the importance of feelings in learning and knowing. Subjective knowers pay little attention to the child's cognitive processes since they are not very cognizant about cognition in anyone, including themselves. Jenny, on the other hand, focuses both on the emotional and cognitive domains of teaching. Her images of teaching include enhancing self-esteem, parenting, knowing and understanding children, but the new image that she is able to articulate, is that of teaching as helping children construct knowledge.

Maria, Peggy and Jenny will teach in very different ways. One way to "peek into their classrooms" is to look at their visions of their future students. Maria perceives children as a potential source of problems for herself as a teacher and focuses on the boundaries she needs to establish to feel safe. Peggy focuses on building friendly relationships with children. Jenny's perception of students is based on her respect and admiration for children as learners. Jenny exhibits a passion for learning and teaching that is unique to this group of preservice teachers.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND SOME FURTHER QUESTIONS

Introduction

In this chapter I intend to integrate the main findings that emerged from this research, to draw some conclusions from examining entering preservice teachers' perspectives on teaching and the self, and to suggest possible implications of these findings for teacher education and future research. The results of this study will be related to other research findings an interpreted within the theoretical frameworks of social constructivism and the dialectical approach to teacher development. I also intend to summarize the questions for future research raised in the process of conducting the study, some of which also relate to broader issues of identity formation and women's epistemological development in early adulthood.

Integration of Findings

The basic premise of social constructivism is that individuals "make meaning" out of their social experiences. In this case, entering preservice teachers interpret teaching and their own identities from their personal experiences but also as members of social groups: as female, White, middle class, students, and teachers. Participants' notions of teaching are developed as an attempt to include both individual experiences and socially constructed notions of teaching through a dialectic process of negotiating and reconciling often contradictory pulls.

Despite recent interest in teachers' thinking, entering preservice teachers' voices are missing from the research. As Hargreaves (1996) points out, teacher voices in educational research have been romanticized by using exemplary teachers as representative of teachers voices in general, lacking the attention to the contexts of teaching and to different and often discrepant voices of other teachers whose perspectives are not consistent with researchers'. Acknowledging my own biases and tendencies in this dissertation to give more space to Jenny and Jill than to Theresa or Julia, I believe I learned a lot about teaching future teachers from the latter two, although it was harder for me as a researcher to validate themselves as learners and knowers. I believe the cacophony of voices among those who enter teacher education is a source of knowledge and learning not only for students as they reflect on teaching in their cohort groups, but for teacher educators as well.

An important finding of this study is that the images of the self and images of teaching are closely interconnected for students at the beginning of their teacher education program. For a substantial portion of respondents the idea to choose teaching as a vocation has developed since childhood and has constituted an important aspect of their sense of self. Even for those who "discovered" teaching in high school or college, teaching is significant in their current definitions of themselves. Respondents often cite the same attributes both as self-descriptors and as perceived characteristics of good teachers. It can only be hypothesized that as they progress in their professional development as teachers, these two domains will become even more interwoven.

Another finding is that the modes of self definition and the competencies of this group of future early childhood teachers reveal their focus on the interpersonal domain, in understanding others and in attention to other's needs. This orientation also affects their views on teaching. They take into account holistic perceptions of students, not just

academic or cognitive growth. This group of preservice teachers seems well-equipped to address students' needs based on preservice teachers' personal preferences.

Most participants use predominately *connected self mode* (Lyons, 1983) in their self-definition. In other words, they define themselves through their relations with others as they try to understand others in their own terms. This willingness to empathize with the inner experience of others is a strength that enhances preservice teachers' ability not only to acknowledge, but also to understand others' perspectives.

Another important finding is that the analysis of epistemological beliefs, based on the "ways of knowing" framework (Belenky et al., 1986), reveals that the biggest group among participants are subjective knowers. As a consequence, the majority of preservice teachers in this sample perceive teacher education courses as secondary sources of knowledge about teaching, not equally important as practical experiences. This finding is consistent with previous research findings (Weinstein 1990, Britzman 1991) as well as with the subjective knowers' orientation towards relying on internal sources of knowledge. The majority of respondents believe that teacher education courses are of limited value for their future teaching, useful mostly for providing some additional ideas and resources.

This sample of entering preservice teachers is extremely homogenous in terms of race, gender, and social class. The vast majority of participants are White, middle class women. While they easily articulate how gender affects their sense of self, at the same time they have little awareness of the impact of race and social class on their current perception of self and on their school experiences.

Most participants' visions of themselves as teachers are rather simplistic, focusing on a single dimension of teaching that they appreciated as students in school, or based on a

metaphor that is included in the shared conception of good teaching, without much elaboration on possible connotations or different interpretations of its meaning.

In constructing their notions about teaching and their visions of themselves as teachers, participants' perceptions of teachers they considered good or bad seem particularly important. Good teachers are conceptualized through four factors: (1) teachers' personality traits such as: flexibility, curiosity, happiness, spontaneity, energetic or bizarre personality, (2) teachers' relationship with students based on respect and fairness, (3) knowledge of child development, pedagogy, subject matter as well as the breadth of life experiences, and (4) enthusiasm and motivation for teaching.

Respondents use three main metaphors to illuminate the teacher's primary role: the teacher as the disseminator of knowledge, the teacher as a leader, and the teacher as the catalyst for learning. These three metaphors are based on different assumptions about the relationship between teaching and learning. The metaphor of the teacher as a disseminator of knowledge represents the belief that the teacher is a direct cause of learning by telling students what she/he knows. Entering preservice teachers who use this metaphor view students as blank slates absorbing any information the teacher presents. They perceive teaching as telling, and the teacher as the source of knowledge. The metaphor of the teacher as the leader is based on the assumption that the teacher mediates student learning by leading children through the learning process in a planned manner. This is a view of the teacher as both the source and recipient of knowledge that is transmitted in both directions between the teacher and the students. According to this metaphor the teacher's primary role is to initiate and lead the inquiry. The last metaphor of the teacher as the catalyst for learning is based on the assumption that the teacher facilitates student learning by providing an environment conducive to exploration. The teacher's primary role is therefore to nurture students' inherent curiosity, and the teacher is perceived as a partner in student initiated

inquiry. For entering preservice teachers who rely on this metaphor, the teacher is the facilitator for learning, and teaching is primarily listening to students and helping them find answers to their questions.

Entering preservice teachers in this sample conceptualize teaching as responsibility for student well-being and responsibility for student learning. The first notion is illustrated through the images of teaching as enhancing self-esteem and parenting. The second notion is present in the images of teaching as making learning fun, knowing and understanding students, transmission of knowledge, and helping students construct knowledge.

The results indicate that instead of a traditional notion of learning as hard work, most entering preservice teachers in this sample develop an image of learning as an easy, effortless, and enjoyable activity that brings instant gratification. The results of this study confirm previous findings (Calderhead & Robson 1991, Mertz & McNeely 1991, Weinstein 1990) that students enter teacher education with firmly held beliefs about teaching.

Notions about teaching are inextricably linked to respondents' conceptions of personal identities and particularly to their idiosyncratic experiences as learners in schools. As the majority of participants predominantly use the subjective knowers' stance toward the sources of knowledge, it is understandable that their personal experiences and feelings toward school "paint" their images of teaching and learning. Similarly, they believe in the primary value of practical experience in learning to teach. The assumption of subjective knowers is that learning to teach consists mostly of relying on how a certain teaching method/strategy feels internally. It is conceived as a rather haphazard process of trial and error, rather than as a practice led by certain assumptions or theoretical affiliations.

Participants' images of themselves as teachers focus on several attributes: "fun" , "effective", "creative", and "fair" teacher. Regardless of the metaphors they use to describe teachers, the majority of respondents base their images of themselves as teachers on the metaphor of the teacher as the disseminator of knowledge. The only modification from the traditional image of the teacher is that most entering preservice teachers in this sample envision themselves as not only effective, but also entertaining and creative in their transmission of knowledge.

Most respondents would prefer to teach in communities similar and geographically close to the ones they grew up in. They also opt to teach middle class children of average abilities. Although participants have relevant ideas about changing some aspects of educational practice in schools, most of them lack both self-confidence and knowledge about how to implement these changes.

The results of the analysis of three case studies indicate that the beliefs and theories of oneself as a learner are closely related to perceptions and priorities in teaching. Maria, a received knower, focuses on teaching as the transmission of knowledge and on establishing boundaries between herself and the students that will provide students' respect. Peggy, a subjectivist, focuses on how children feel in the classroom and wants to enhance students' self-esteem. As a teacher, she wants to become their friend. Jenny, a constructivist, is able to integrate concerns for both emotional and cognitive development of students in her teaching. She respects children as learners, strives to maximize children's potential, and her passion for teaching is unique to this group of preservice teachers.

Policy Implications

Entering preservice teachers in this sample have little awareness of contextual factors that have influenced their identity construction or their expectations of their future teaching roles. This finding is important in the light of the changing demographic of schools in our multicultural society. How teachers' social groups affect their sense of identity or their teaching would not be such an important question for teachers in homogenous communities such as the ones most of these preservice teachers grew up in. However, in the increasingly diverse communities of tomorrow's schools lack of awareness, in this group of preservice teachers, on how their race and social class affects their sense of self seems important. One of the factors that hinders this awareness is the homogeneity of the cohort of entering preservice teachers in this sample. Therefore, the recruitment of a more diverse pool of students in teacher education programs is important not only because children might benefit from teachers of the same gender, race, or social class as role models, but also since it might promote awareness among preservice teachers of the influences of their social groups to their identities and consequently to their teaching.

Negative selection, the finding that several individuals in this sample decided to become teachers since they were unable to pursue other career options, will remain a factor in choosing teaching as a career as long as the status of teaching in society remains lower than other professions that require similar educational levels. The low prestige given to teaching is apparent in the salary ranges of teachers as compared to other professions, and it applies particularly to preschool or day-care teachers.

Another issue for policymakers is the finding about preferred teaching environments. Very few of preservice teachers in this sample would choose to teach in cities or in communities with substantial minority populations. They are also reluctant to

teach special needs children. Although these attitudes might change during their teacher education, this is an issue of concern.

Since teaching opportunities in high school and college emerge as a crucial factor for choosing teaching as a career, early childhood classes with practicum components seem to provide a significant avenue for recruiting more students into teaching profession. It might be specially relevant for the recruitment of teachers from groups that are already disproportionately underrepresented: racial minorities, students from lower socio-economic class, and men. On the broader societal level, the changes in teacher salaries and/or in public perception of teaching would contribute to higher regard and more candidates for teacher education programs.

Implications for Teacher Education

The implications for teacher education refer to the content, structure and organization of teacher education courses, phrased in terms of educational objectives.

Consistent with other research findings (Feiman-Nemser & Melnick 1992), preservice teachers in this sample cite their love of children as one of the main reasons to choose teaching as a profession. They love to be in the company of children or to play with children, but very few among them mention their interest or attention to children as learners. This attitude is also reflected in their conception of teaching as parenting and care-taking. While the holistic notion of a child that integrates the emotional, social and cognitive sphere might enhance future teachers' skills to better address individual child's needs, it could also hamper their role in broadening the students' worlds and deepening their academic interests. Periodic revisiting of preservice teachers' notions of teaching during teacher education through discussions, questioning, modeling, and reflecting on different conceptions of

teaching might help clarify the present images of teaching and build more complex images that integrate different aspects of teaching that are often contradictory.

One objective for teacher education is to examine individual's beliefs about teaching and learning through reflections on educational biographies, visions of teaching, and educational terminology early on in the teacher education program. My suggestion is to provide opportunities for learning about images of teaching that are different from the ones students articulate, and to approach new images of teaching by allowing students to experience and reflect upon their own learning process in particular classroom activities instead of telling them about these images. For example, an approach to constructivism could be based on concrete classroom activities in which students experience ways of constructing knowledge. It is also important to openly discuss students' concerns and dilemmas about these new images of teaching. Images of teaching could be analyzed as consequences of different contexts, such as cultural, historical, etc., not only as results of individual's beliefs and choices.

Another objective for teacher education is to explore students' current perceptions of a broad range of competencies, especially academic competencies, and to address the competency gaps in major curriculum areas they might teach, particularly in math. The perceived lack of academic competencies, seems to have a profound effect on preservice teachers' present perception of themselves as learners, as well as on their future role as teachers. Therefore it is important that they become aware of, and experience their expertise in different academic areas during teacher education, to avoid unintentionally transferring low expectations to the students, particularly girls, in their classrooms.

Lack of self-esteem in cognitive competencies in math is significant since it affects participants' notions of themselves as learners and since they will be the teachers who would

introduce math and science to young children. Similarly, lack of their interest in literature raises the question whether interest in subject-matter knowledge should be considered as an important criterion for admission into a teacher education program. If teachers' enthusiasm and interest in the content of the curriculum affects students' motivation to become life-long learners in these domains, as it is evident from respondents' own accounts of good teachers they had in schools, then it is significant that these students will teach the subjects that they are not interested in and/or in which they feel incompetent as learners. Therefore one of the objectives for teacher education courses is to provide learning experiences, particularly in math, which could challenge students' current perception of subject matter as irrelevant, uninteresting, and difficult to learn.

Thinking about teaching from one's own perspective as a learner in school is a first step towards understanding other learners. Preservice teachers might benefit from the awareness of how much their thinking relies on their learning styles. The next step would be to understand learners with dissimilar strengths, and limitations. In order to help preservice teachers move beyond the egocentric perspective, teacher education courses could provide a forum for discussing personal issues and hopes related to learning, and the opportunity to acknowledge dissimilar issues of other learners.

Since many interviewees, particularly the subjective knowers, are prone to make their decisions about teaching by generalizing their experiences as students in school as universal, an important objective for teacher education is to raise student awareness of the self-centered basis of their process of reasoning and reflection. As Dickie (1991) points out, exposing preservice teachers repeatedly during teacher education courses and practica to other students' accounts of schooling that are substantially different from their own, might be a useful strategy to overcome egocentric thinking and to promote reevaluation of previous assumptions about teaching.

In order to promote the learning and well-being of each student, as well as social justice in an increasingly diverse student population, there is a need to enhance preservice teachers' understanding of their own racial/ethnic and social class identity, to broaden their understanding of identity development for social groups different from their own, and also to promote the understanding of institutionalized, attitudinal, and unconscious racism and social class oppression.

A factor that would contribute to professional development of preservice teachers is a teaching environment that fosters preservice teachers' willingness to reflect on their assumptions and experiences as learners, and to discuss the dilemmas and uncertainties they face as teachers. Belenky at al.'s (1986) notion of "midwife teaching" is based on the assumption that the teacher helps the students to develop new ideas and construct knowledge. Critical theorists (McLaren 1994, Giroux & McLaren 1986, Britzman 1991), liberatory approaches (Freire 1970, Shor 1992, 1987), and feminist literature on teaching (Lewis, 1993) focus on the same principles of affirming the students as knowers. Teacher education courses could be "yogurt classes" (Elbow 1973, as cited in Clinchy & Zimmerman 1985) conducive to student growth if (1) learning is viewed as a relational activity (Palmer, 1987), based on connection and on affirmation of students as knowers, embedded in but also transforming the students' experiences, and (2) teacher educators position themselves as learners who construct knowledge jointly with the students. Providing the opportunities for preservice teachers to get to know their instructors and fellow students as learners and knowers could enhance their abilities to make learning more meaningful for children. Teaching strategies that focus on collaborative learning, small group activities, and one-on-one interactions between the teacher and the student, or between students might help facilitate that process.

Benack (1984) notes that for dualists it is threatening to emphatize with someone who is seen as holding wrong beliefs or, as Maria in this sample labels it, with someone "who is not a good person." Still it might be a useful exercise for the preservice teachers to practice understanding the viewpoints and feelings of students who they perceive as problematic in the classroom.

Since students in teacher education classrooms espouse different "ways of knowing," balancing the needs of different groups of students is a juggling act that often addresses the needs of some groups better than the others. If teacher educators don't pay attention to their own epistemological beliefs and how these beliefs influence their teaching, they tend to be more responsive to those students whose beliefs about knowledge more closely match their own. Making epistemology an explicit curricular agenda for both preservice teachers and teacher educators might help address this problem and provide a more supportive learning environment for all learners.

Uncovering preservice teachers' beliefs about the nature and sources of knowledge could be used as means towards self-reflection on teaching and learning. If preservice teachers become more aware of their "ways of knowing" by observing, discussing or reflecting on them during teacher education, it might stimulate the reexamination of their beliefs about teaching. Studying epistemology as a part of teacher education will also enhance teacher educators' understanding of students' beliefs and assumptions about learning and therefore could be instrumental for designing learning activities that will challenge or contradict some of the embedded beliefs.

However, since learning is not limited to the classrooms, out of class learning experiences in teacher education programs are as important as the content and structure of curriculum. Providing opportunities for cohort groups to interact during their educational

journey, as well as formal and informal support networks (advising, mentoring, common sequence of courses that they take together, interest and support groups) contribute to building a sense of community and developing individual professional identity and voice within that community.

Teacher education could provide opportunities to explore preservice teachers' visions and ideals of changes they would like to see in school or "the realm of the possible" (Britzman, 1991). Preservice teachers might also benefit from learning about, and meeting exemplary local teachers who contributed to significant change in schools. They also need practice in implementing their own ideas about changes in their practicum sites. In order to become the agents of change in future schools, preservice teachers need education and experience not only in teaching children but also in working with parents, other teachers, members of the community, school administrators, and community leaders.

Inquiry into the perceived problems teachers face reveals that entering preservice teachers consider that most teachers' problems originate outside of teaching. This belief facilitates attributing children's academic failure or social problems in school to the outside factors — such as the breakup of the family or parenting practices. Future teachers need help in assuming responsibility for their own teaching despite outside constraints over which they have little or no influence.

I propose focusing on (1) images of teachers, on (2) preservice teachers' visions of themselves as teachers, and (3) on their current epistemological beliefs, as core issues in the content of teacher education curriculum. Since the participants in this study are very homogenous in terms of race and social class and since they grew up in homogenous communities, a particular lack of awareness about influences of social groups is noted in participants' accounts of their experiences as learners in school. Attention to the context of

teaching in teacher education — by studying both one's own group and other groups' experiences under the unequal distribution of power — might enhance teachers' sensitivity to the broader picture, as the advocates of critical pedagogy propose (McLaren 1994, Shor 1992, Freire 1970). As Dickie (1991) and Nieto (1996) suggest, addressing the social issues in education needs to be a gradual and planned process that is based on global commitment to democracy and social justice of the whole teacher education program, not on singular courses that are supposed to address learners' diversity or multicultural education as isolated topics. In order to educate teachers who will be critical thinkers willing to transform the schools and not merely recreate the status quo, teacher educators need to provide affirmation of preservice teachers as knowers during their teacher education. Preservice teachers also need to experience some of their potential for changing schools during their teacher education program.

Since learning to teach is inherently a struggle and since contradictions and paradoxes are an integral part of teaching, they cannot be avoided or eliminated. On the contrary, these paradoxes ought to constitute the very core of the teacher education curriculum.

Suggestions for Future Research

While findings of this study reveal the complexities of beliefs about the sources of knowledge that are domain specific, and simultaneously include the elements of more than one "way of knowing," longitudinal studies of epistemological perspectives would help uncover the conditions that evoke the transition from dualistic to relativistic thought as well as the nuances in swaying from received and subjective knowledge towards procedural and constructive knowledge. Longitudinal research of epistemological positions would also

reveal to what extent epistemological beliefs change during preservice teacher education and what kind of experiences might contribute to that change.

Another question for further research is whether the prevalence of *connected-self* reasoning (Lyons, 1983) stems from the fact that most respondents are women, or if thinking of oneself as predominantly "connected" in relationship with others is a precondition for choosing teaching as an occupation. In order to answer this question a larger sample, with both genders equally represented, would be necessary.

The finding that preservice teachers rarely think of themselves as academically competent points to another question for further inquiry: To what extent is the perceived lack of academic competencies limited to early childhood preservice teachers, or in other words would the students in elementary or secondary teacher education programs rate their competencies differently?

Another question that needs further longitudinal research is the examination of whether students' notions of themselves as math learners change during teacher education, and what kind of experiences could facilitate or hinder that transformation.

The only two women in this sample who developed self-confidence in math had male mentors in that domain. Two questions that seem interesting for further research are: (1) the importance of mentors for girls in developing self-confidence and overcoming low self-esteem in what was perceived as a "male" domain like math, and (2) whether the gender of these mentors is significant.

There are several more questions that refer to the particular context of this study:

1. To what extent does the implicit expectation of the Program faculty — that students should accept and internalize constructivist notions about learning and teaching — take into account students' current epistemological levels?
2. How to provide an environment conducive to further change of beliefs about knowledge for received and subjective knowers in this Teacher Education Program?
3. What can one learn from Jenny's story? What accounts for the fact that she is so different from all the other preservice teachers in this sample? In what ways has her college experience at a particular liberal arts college contributed to her current constructivist perspective?
4. Does this Teacher Education Program support students' epistemological development beyond the subjectivist perspective?

It is plausible to hypothesize that teacher educators' inattentiveness to students' current ways of knowing, might be the source of frustration for both the students, who may find it overwhelming, confusing and inconsistent with their premises to construct their own knowledge, and for professors who might be disappointed with the level of discussions and reflections about teaching displayed by the majority of their students.

To End with More Questions

Other issues that need further research are the order and the transitions between different epistemological positions. Does the reasoning about knowledge and truth follow the relatively universal sequence of development of epistemological positions as Perry (1970) claims and Belenky at al. (1986) imply? How does a knower change positions from subjective towards procedural and constructive knowledge? Is it a process that can be described by Piagetian notions of accumulating enough contradictory evidence until assimilation into the old schema is not possible and one accommodates the old model?

What would be a more accurate representations of these transitions? Which learning experiences can facilitate the transitions, if any?

While Benack (1984) points out that a move from dualistic to relativistic epistemological thought is associated with a heightened ability for emphatic understanding, it would be important to examine if exercises in emphatic understanding facilitate the transition towards a more complex epistemological reasoning.

More research is also needed to describe the variations of individual's epistemological beliefs across contexts, looking at the mechanisms a person employs in epistemological reasoning as well as in negotiating beliefs in different domains of knowledge. Some research findings (Schommer & Walker, 1995) support the notion of domain-independent epistemological beliefs. On the other hand, the results of this study suggest the discrepancies between entering preservice teachers' epistemological positions related to teaching as compared to other domains of knowledge.

In a recent comprehensive review of epistemological models — which includes Perry (1970) and Belenky et al. (1986) — Hofer and Pintrich (1997) make these suggestions for future research:

> Dannefer (1984) notes that the developmental theories may fall into the trap of ontogenetic reductionism - the practice of treating socially produced and patterned phenomena as rooted in the characteristics of the individual organism. Although Piagetian theory and most of the epistemological schemes covered here have presumed an interactionist mode, the study of epistemological beliefs has treated them as individual cognitive constructs. No studies to date have attempted to look at beliefs in a more situated fashion, although Roth and Roychoudhury (1994) go so far as to suggest that 'it might be more appropriate to speak of epistemological positions only in specific contexts rather than as descriptors of an individual's views in general.' More research is needed to examine the contextual nature of epistemological theories. Moreover, there is an need for cross-cultural research on the development of epistemological theories. The common developmental endpoint of most

> of the models of epistemological development may be a socially constructed artifact of Western schooling and culture (Moore, 1994).

Similarly, as they define feminist epistemologies, Alcoff and Potter (1993) question the universal accounts of the nature and sources of knowledge that ignore the social context and status of knowers. Research which examines the "ways of knowing" — as they relate to subjects' social settings and power relationships within these contexts — might help legitimize different understandings of the world and beliefs about knowledge. Although these new context-bound epistemologies don't seem to fit into universal models of development, they constitute an exciting new avenue for epistemological research.

An important issue for teacher educators is how to attend to the different epistemological levels of their students. Thies-Sprinthall & Sprinthall (1987) argue for a tracking approach in which some students would have a more structured learning environments with concrete tasks and close supervision, while others would be exposed to more theoretical and open-ended tasks with less supervision. Similarly Baxter Magolda (1992) offers some suggestions for matching students' epistemological perspectives with teaching strategies. She elaborates on how to match different learning needs of diverse groups of knowers through professor's behavior, teaching methods, classroom structures, and evaluation. She argues that it is important for received knowers that professors are willing to help and know the students well, while constructive knowers thrive in a collegial relationships with professors. According to her, the importance of students' involvement, opportunities to learn independently or achieve interdependence, as well as the choice of the evaluation formats that promote critical thinking and application of learning to personal life experience, varies for students with different "ways of knowing."

On the other hand, McAninch (1993) advocates curricula that facilitates intellectual development of all students in heterogeneous settings. The results of this dissertation might be used to support her ideas. Although Maria might be confused with the ideas about

teaching she encounters in her teacher education class that originate from students whose epistemological positions are different from her own, these ideas might facilitate Maria's growth.

While all preservice teachers need support and confirmation in validating themselves as knowers, the experience of contradiction, knowledge discrepancies and uncertainties, as well as disagreement among authorities, might also be necessary to develop their own voices. For teacher educators who believe that we all learn by constructing knowledge, it is of primary importance to explore whether and how they might facilitate the epistemological development of their students toward constructivism during preservice teacher education.

APPENDIX A

INVITATION LETTER TO POTENTIAL INTERVIEW PARTICIPANTS

Irena Bozin-Mirkovic
14 Moss Lane, Amherst, MA
Phone: 256-4548

August 31, 1994

Dear _____,

I am a doctoral student in the School of Education at the University of Massachusetts, Amherst and I am working on a dissertation in the area of teacher education. Your name has been given to me by the chair of the Early Childhood Department at UMASS as a student who has been admitted into the program. I am interested in understanding students' ideas and expectations about teaching. My interest in this area stems from my career goal as a teacher educator. I am currently a teaching assistant in the School of Education. I teach Child Development and I also work with student teachers.

This will be a qualitative study which will use interviewing as a methodology. The purpose of interviews is to ask participants to retell their experiences and explore what teaching means to them. I plan to conduct two 90 minute interviews. One interview will be about the personal history, and another one will focus on participant's current ideas, beliefs, and expectations about teaching. The participants will also be asked to fill out a demographic questionnaire and to allow me to use their application form for the School of Education. If you choose to participate you would not become a statistics, you will be given a voice.

All the information participants provide is confidential. The anonymity of participants will be achieved through changing all names and identifying references. The benefit of participating in the study is to be able to clarify your own positions about teaching and to learn more about yourself as a person. However, the participation in the study is voluntary and it will not affect your grades in the School of Education. It is hoped that information from this study will be used to improve the quality of teacher education courses to better meet the needs of the students. Therefore, I would greatly appreciate your willingness to take part in this project.

If you would like to participate or to learn more about the study, please respond on the enclosed form and I will call you to answer any questions and/or set up the time we can arrange a preliminary meeting at your convenience. Thank you for taking the time to consider this proposal. I look forward to hearing from you.

Sincerely,

Irena Bozin-Mirkovic, M.Ed.

APPENDIX B

INITIAL QUESTIONNAIRE

NAME _____

LOCAL ADDRESS _____

PHONE(S) _____

BEST TIME TO CALL YOU _____

TIME TO AVOID CALLING _____

Check what applies: -I would like to participate in the study. ____
-I would like to learn more about the study. ____

Please provide some more information about you:

AGE _____ GENDER _____
RACIAL/ETHNIC BACKGROUND _____
HOW MANY SIBLINGS DO YOU HAVE? ____ YOUR BIRTH ORDER?____
DO YOU HAVE CHILDREN? Yes ____ No _____
WHAT IS YOUR UNIVERSITY STATUS? -freshman ____ -senior ____
-sophomore ____ -post B.A. ____
-junior ____ -other (specify)
_____

WHAT ARE YOUR MAJORS? _____

WHICH GRADE LEVEL(S) DO YOU WANT TO TEACH?_____

DO YOU HAVE ANY TEACHING EXPERIENCE? IF YES, PLEASE DESCRIBE IT.

_____

_____

_____

OTHER INTERESTS BESIDES TEACHING?

_____

_____

APPENDIX C

INFORMED CONSENT FORM

I agree to voluntarily participate in the research study conducted by Irena Bozin-Mirkovic, a doctoral student in the School of Education at the University of Massachusetts. I understand that the research involves a study of entering teacher education students' conceptions and expectations about teaching. I understand that it will involve two 90 minute interviews, and a short demographic questionnaire. I also agree that the researcher uses my application form for the School of Education in her study. I can contact Prof. Kevin Nugent or Prof. Grace Craig if I have questions about the research process.

Any information that I offer will be kept strictly confidential. Although there is a risk of being identified the following steps would be taken to protect the anonymity of participants. All names and some identifying references including geographic locations will be changed in any written materials or talks resulting form this study. The researcher will not discuss with the dissertation committee or with anyone else any names or identifying particulars of the participants. The interviews will be tape recorded and the audio tapes will be erased upon the completion of the study, or upon my request the tapes will be given to me. The tapes will be transcribed either by the researcher or by a trusted transcriber. I understand that the results of the research will be made available to me upon my request, and that I may also have access to the dissertation or other written materials derived from this study at its conclusion.

I am aware there is no monetary compensation for participation in or publication of this research.

I have read the above statements and discussed them to my satisfaction with Irena Bozin-Mirkovic. I agree to participate in the study. I also have the right to discontinue participation at any time during the research.

_____ _____

Date Signature of Participant

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

1. YOUR NAME _____
2. DATE OF BIRTH _____ PLACE OF BIRTH _____
3. HOW MANY SEMESTERS HAVE YOU COMPLETED AT THIS UNIVERSITY? (DO NOT INCLUDE THE CURRENT SEMESTER) _____
4. LIST ALL THE OTHER SCHOOLS, COLLEGES OR UNIVERSITIES THAT YOU ATTENDED IN CHRONOLOGICAL ORDER STARTING FROM PRESCHOOL AND ELEMENTARY SCHOOL

SCHOOL TOWN TIME OF ATTENDANCE

_____

_____

_____

_____

_____

_____

_____

7.WHAT IS YOUR FAMILY'S APPROXIMATE ANNUAL INCOME?
(IF YOU ARE FINANCIALLY DEPENDENT ON YOUR PARENT(S) FILL IN THE JOINT INCOME OF YOUR FAMILY OF ORIGIN,
IF YOU ARE FINANCIALLY INDEPENDENT FROM YOUR PARENTS FILL IN YOUR INCOME OR JOINT INCOME FROM YOU AND YOUR SPOUSE)

BELOW $20,000 ___ $40,000 - $60,000 ___
$20,000 - $40,000 ___ OVER $ 60,000 ___

8. WHAT WAS YOUR FAMILY'S APPROXIMATE ANNUAL INCOME AT THE TIME OF YOUR ELEMENTARY AND HIGH SCHOOL YEARS?

BELOW $20,000 ___ $40,000 - $60,000 ___
$20,000 - $ 40,000 ___ OVER $60,000___

9..ARE YOU PRESENTLY EMPLOYED? YES ___ NO ___
IF YES, HOW MANY HOURS A WEEK DO YOU WORK? ____

10. WHAT IS YOUR MOTHER'S EDUCATIONAL LEVEL? _____
OCCUPATION? _____

11. WHAT IS YOUR FATHER'S EDUCATIONAL LEVEL? _____
OCCUPATION? _____

12. DO YOU CONSIDER TEACHING A TEMPORARILY OR A LIFE-LONG OCCUPATION FOR YOU?
TEMPORARY ___ STILL DON'T KNOW ___
LIFE-LONG ___
13. WHAT ARE YOUR ULTIMATE CAREER GOALS?_____

14. WHAT ARE THE COURSES YOU ARE TAKING THIS SEMESTER? _____
_____
15. WHICH EDUCATION COURSES HAVE YOU TAKEN BEFORE? _____
_____

APPENDIX E

FIRST INTERVIEW GUIDE

In this interview I would like to learn more about you up to this point in time, to place your entrance to the School of Education in the context of your life.

MAIN QUESTION: HOW DID YOU COME TO BE A PRESERVICE TEACHER?

A.FAMILY
1. Tell me about your family and about yourself as a child.
2. How would you characterize your relationship with your mother?
3. What does your mother think of your intent to become a teacher? What would she like you to be?
4. Same questions about the father.
5. What other people were important to you when you were a child, if any?
6. Was there someone who was a good teacher in your family? Explain. I am thinking of teaching in a broad sense.
7. Did you teach anybody in your family?

B. SELF/IDENTITY
8. To get a glimpse of who you are, tell me something about either your travels, books, movies, or music that made an impact in your life, whatever was important for you.
9. Everybody is really good in something. What would you define as your area of expertise?
10. How would you describe yourself to yourself? (If you were to tell yourself who you really are, how would you do that?) B
11. How would other people describe you? Who would they say you are?
12. Is the way you see yourself now different from the way you saw yourself in the past? What led to the changes? B
13. What does being a woman/man mean to you? Do you think there are important differences between women and men? How has your sense of yourself as a woman been changing? B
14. Same question for race.
15. Same question for socioeconomic status.
16. What are the most important things/issues for you now in your life?

C. SCHOOLING - GENERAL
17. Tell me about yourself as a learner in school.
18. What did you like most about your school experience?
19. When were you happiest in school? What made you happy?
20. How did schooling affect your self-esteem and your sense of self?

D. EPISTEMOLOGY
21. Looking back over your whole life, tell me about a really powerful learning experience you had, in or out of school. B
Please comment on these statements (written on index cards) B

22. In areas where there is no right answer, I think anybody's opinion is as good as another.
23. The experts should tell us what are the right answers.
24. Sometimes I read something that someone has written and it impresses me. I think to myself: "I'll never have an idea as good as that. I just don't know how people ever get to the point where they have something so important to say."
25. Sometimes I am bored with school since it's just so much sitting and listening the teacher talk about things that aren't important.

26. In learning something you really want to know can you rely on experts, or people who know a lot? B
27. What if the experts disagree? B
28. Do you think that someday they'll come to an agreement? Why/why not? B
29. How do you know what is right/true? B
30. What do people mean when they talk about "searching for truth"?
(Do scientists, artists search for truth? Will they find it?) B
31. What do people mean when they talk about intelligence?
32. What is a real intelligence for you?
33. Do you consider yourself intelligent according to your own criteria?
34. How do you get to know things/truths in the area of your expertise?
35. How do you know what is good teaching?

E. EARLY SCHOOL EXPERIENCES - PRESCHOOL/ELEMENTARY
36. What were your early school experiences?
37. Since you said you would like to teach a particular grade level, what was that grade level like for you? What are the emotions that stand out when you think of your own schooling at that time?
38. Tell me about one event from school at that period in as many details as you can.
(Reconstruct events.) What happened?
What was the event like for you at that time? (Reconstruct attitudes and opinions.)
39. Describe the physical setting of your elementary school.
40. Tell me something about that community?
41. What are other important events and developments related to your elementary school years?

B - Belenky et al. (1986) question

APPENDIX F

SECOND INTERVIEW GUIDE

This interview will focus on your later school experiences and your current views of teaching.

MAIN QUESTION: WHAT DOES IT MEAN TO TEACH?

LATER SCHOOL EXPERIENCES - JUNIOR HIGH/HIGH SCHOOL/UNIVERSITY
42. Tell me about your junior high school and high school.
43. What are the pictures/events/anecdotes that come to your mind when you think of that period of your schooling?
44. How would you describe the transition from high school to the university? (Or the period in between for older students)
45. What has been your experience of the university so far?
46. What are the courses you took at this university that had some impact on you? How/why did they affect you?
47. What do you think will stay with you about your experiences at this university? B
48. Has being here changed the way you think about yourself or the world? B
49. How has this school supported you?
50. What are the things this school does not provide? B

DECISION TO BECOME A TEACHER
51. Tell me about the process you went through as you were deciding to become a teacher. I am interested in your internal journey as well as in outside events.
52. Who are the persons who influenced your decision?

SIGNIFICANT TEACHERS
53. Tell me about the best teachers you had. (Teachers that made a real difference in your life.)
54. What made them special and important to you?
55. Tell me about an event that illustrates these qualities?
56. Who were the worst teachers you had? Explain Why?
57. Who were some important teachers/mentors outside school? Tell me about them.

CURRENT VIEWS ON TEACHING
58. Tell me about teaching. What is teaching? What does the word teaching mean to you?
59. Think for a minute about a metaphor you would use to describe teaching?(Teaching is ___ .) Explain its meaning.
60. What is a good metaphor for a teacher? (A teacher is a ___ . What else?)
61. What is/are the role(s) of the teacher?
62. Which kind of teacher would you like to be? / What is your dream about yourself as a teacher?
63. How would you like your students to describe you?
64. What will be your main goal as a teacher? Why?
65. What will be the sources of your knowledge and ideas once you have your own classroom?
66. How does one learn to teach?

67. How do you envision your students. Who comes to your mind? When you think about the children you'll teach, which type of child comes to your mind most often?
68. Imagine that you have your degree and you are looking for a job. What would be an ideal job position for you? (Describe the school and the classroom environment.)
69. Would you like to implement some changes in school as a teacher?
70. If yes, how would you do that?
71. Tell me about teaching experiences you have had so far?
72. How did it feel for you to be a teacher?
73. What do you like most about teaching? Give me an example.
74. What do you dislike most about teaching?
75. Do you think teaching is easy and straightforward? Why or why not?
76. If not, what do you think are the problems teachers encounter? (If she/he mentions classroom management prompt further: Is there anything else?)
77. Are these problems solvable?
78. What are your questions/dilemmas/concerns about teaching now, both personal and professional?
79.Please comment on the statements written on these cards:

1. He who can, does. He who cannot teaches.
2. What I do as a teacher doesn't make much difference for some children.
3. Teachers are self-made. Br.
4. In the classroom , everything depends on a teacher. Br.
5. Teachers need to be experts. Br.
6. Some children don't want to learn.

B - Belenky et al. (1986) question
Br.- Britzman (1986)- cultural myth about teaching

APPENDIX G

THANK YOU LETTER

Irena Bozin-Mirkovic
14 Moss Lane
Amherst, MA 01002

October 20, 1995

Dear ____,

I would like to thank you again for participating in my study. I would be glad give you the copies of your interview transcripts. Also, if you are willing to read the first draft of the results chapter in the dissertation, I would appreciate your feedback. I am giving a seminar about the study on Tuesday, November 28, 8.30 AM, in 225 Furcolo Hall at UMASS, and you are welcomed to attend. To get the interview transcripts or/and results chapters please give me a call or mail this form back to me. My phone number is (413) 256-4548.

Irena

____ I would like to get the copies of my interview transcripts.

____ I would like to read the first draft of the dissertation.

My address is: _____

APPENDIX H

INITIAL SKETCHES OF PARTICIPANTS

This information was gathered through the initial questionnaire, demographic questionnaire, and personal statements that preservice teachers provided when they applied to the teacher education program, the impressions the interviewer recorded at the time of the first interview, and also from participants' descriptions of their families in the first interview.

CARRIE (39) lives with her husband and two children. She is a student in the University Without Walls and she is majoring in Social Issues in Children's Literature. She volunteers part-time in an elementary school library. She has also worked as a classroom volunteer in reading, writing, and arithmetic. After she finishes her B.A. she plans to get a M.A. in library sciences. Her other interests besides teaching include: reading, cooking, gardening, bicycling and skiing.

DIANE (20) rides her bike to the interview. She talks fast and easily finds words to express herself. Her majors are Sociology and Early Childhood. As a teacher she wants to "expand children's minds". She wants to create an environment rich in positive reinforcements and to provide effective tools for the development of social and academic skills. She would prefer to teach second grade. Her ultimate career goal is to own a day-care center.

DICK (23) seems outgoing and he smiles a lot. He supports himself through college. His ultimate career goal is to be a college professor. Dick is aware of his learning style as a kinesthetic learner, and he reflects that an effective teacher is also a learner. He expects that children will be constantly teaching him. He wants to become an "effective and enthusiastic teacher". He had teaching experience as a swimming instructor. His other interests besides teaching include running and reading.

EMILY (40) strikes me as gentle and soft-spoken. She grew up in an Irish-American family with 6 children, as the oldest girl. She ran a family day-care center in her home, and she worked as an assistant teacher in a private elementary school. She was also a counselor in a community residence for developmentally disabled children. Emily is in the post B.A. program and wants to become an elementary school teacher. She has two children of her own. She likes walking, jogging, and reading.

ERIN (19) seems quiet and gentle. She has a quiet way of laughing. She is majoring in Psychology and Early Childhood. She was a swimming instructor and a volunteer in a day-care center. She spent summers with her extended family with more than 30 cousins. She always wanted to teach, and even as a child she often played school. She finally decided to become a teacher when she took a Child Development class during high school and helped run a nursery school as a part of that class. She thinks teachers need to adapt their teaching to each child, and to be flexible about the changes in their planned lessons. She would prefer to teach in nursery school, kindergarten or first grade. Apart from teaching, she is interested in theater and sports.

HEIDY (20) loves science, and her ultimate career goal is to teach in an elementary school and also to do scientific research. Her majors are Early Childhood Education and Environmental Sciences. She expressed a rather pragmatic goal in her personal statement, "to equip children for the society they live in and the job market." She is interested in presenting science and math to children in "more interesting and creative ways," and in getting the girls interested in these areas, as well as in overcoming the sexism present in today's schools. Her mother was a Sunday school teacher and she had been very proud of that as a girl. After many summers as a student, she herself taught in the same Sunday school. Heidy stresses environmental issues in her teaching . She believes that "in order for a classroom to be successful, certain rules and regulations need to be followed." Her other interests are: basketball, soccer, running, reading, and playing piano.

HELEN (23) is a post B.A. student. She seems outgoing and talks eloquently. Her teaching experience was in an infant day-care center, in a preschool, and in a summer camp. She likes reading, skiing, hiking, exercising, and socializing with friends.

JULIA (22) wants to be an art teacher in an elementary school. She supports herself through college. She has no teaching experience so far. Her area of interest is art.

JENNY (21) is a student at a small liberal arts college and takes some courses at the University. She shines as she talks about children in a day-care center where she is employed as a work-study student. She worked as an assistant teacher with toddlers and preschoolers, she also supervised nurseries in a battered women's shelter. Her ultimate career goal is to become a director of her own preschool. Her other interests are: creative writing, children's literature, Southern American music and literature, parenting, pregnancy, and childbirth.

JILL (23) is the youngest of 5 siblings, from an upper middle class family of Irish origin. This is her first semester in the post B.A. certification program. Jill had teaching experience as an arts and crafts instructor at a day camp, and as a tutor for a child in an inner city school. She likes outdoor activities, particularly biking, and she also likes reading and writing. Her ultimate career goal is motherhood.

LEAH (19) seems outspoken and assertive. It takes us several trials to manage to get together for the first interview. She plans to have her own nursery school. Her vision of a teacher's role includes the importance of observing children, and participating with them in appropriate learning activities. She believes that a teacher needs to be aware of her own background, and have a broad subject matter knowledge. She particularly stresses the importance of being a friend with each student. She is coming from a family of teachers and she always wanted to teach. Apart from teaching, she is interested in Spanish, horses, church, and sciences.

MARIA (20) lives with her boyfriend and her child, age three. Her ultimate career goal is to become a nurse. She chose teaching as a major after she had experience as a camp counselor. She believes she has a lot to offer as a teacher.

PEGGY (20) is majoring in Early Childhood and Psychology. She plans to go to graduate school after college. She wants to learn more about how the "minds of children work." She has a lot of baby-sitting experience. She views children as individuals, and she wants to attend to their varying needs. She had teaching experience as a substitute teacher in a preschool.

ROBIN (20) is majoring in Education and English. She started the interview speaking very softly and looking down. Later on she changes her behavior, talks louder, laughs a lot, and seems self-confident. Since she was young she had a vision of helping people, especially children. She had experience assisting in a preschool and in an elementary school setting, as well as being a camp counselor for a couple of summers. She wants to be enthusiastic as a teacher, and to find fun ways for children to learn and make discoveries. Her goal is to help children become "caring and well rounded individuals." She would prefer to teach first or second grade. Robin is also interested in dancing, volleyball, and coaching.

THERESA (23) is majoring in Early Childhood and Sociology. She would like to teach first or second grade. She talks softly and she seems scared at times. She has a speech impediment. She had a lot of previous experience with children, from baby-sitting to helping in a nursery school. She wants children to learn from hands-on experience, and she stresses the importance of discipline in the classroom. She believes discipline helps children "to learn right from wrong, ... to learn that you (as a teacher) are in charge, and it helps them to learn respect for other people. " Her motivation for teaching stems out of her love for children and her wish to help them in life. She believes that children need to learn by having fun, and she also wants to show them that she loves them since she perceives it as a prerequisite for learning. Theresa likes to play all kinds of sports.

Table I.1 Some Demographic Characteristics of Participants

Name	Sex	Age	Education Level, Major	Race/ Ethnicity[1]	Social Class[1]	Chil-dren	Siblings, Order	Mother's Education	Father's Education
Carrie	F	39	Junior, U.W.W.[2] Child. Literature	Caucasian	upper middle class	2	5, oldest	2 year college	4 year college
Diane	F	20	Junior, Sociology/ECE[3]	White	middle class	no	2, youngest	high school	2 year college
Dick	M	23	Junior, Russian/ECE	Caucasian	father rich, Dick pays his way through college	no	4, youngest	2 year college	4 year college
Emily	F	40	Post B.A. Certi-fication Student	Irish-American	middle class	2	6, middle	high school	masters degree
Erin	F	19	Sophomore, Psychology/ECE	Irish	upper middle class	no	3, youngest	high school	4 year college
Heidy	F	20	Junior, ECE/Env. Science	Irish/Italian	lower middle, grand-parents started poor	no	1, older	high school	4 year college
Helen	F	23	Masters Degree Student	Italian/Polish/ Irish/Danish	upper middle class, father started poor	no	2, oldest	2 year college	masters degree
Jenny	F	21	Junior, ECE/Cr. Writing	Caucasian	changed from lower middle to upper middle	no	3, oldest	masters degree	2 year college
Jill	F	23	Post B.A. Certi-fication Student	Irish	upper middle class	no	4, youngest	4 year college	4 year college
Julia	F	22	Junior, Art/Art Educ.	White	middle class, parents started as poor	no	1, younger	high school	4 year college
Leah	F	19	Sophomore, Spanish/ECE	Anglo	middle class	no	1, younger	masters degree	high school
Maria	F	20	Junior, ECE/Psychology	Hispanic	now poor, was middle class	1	2, oldest	2 year college	2 year college
Peggy	F	20	Junior ECE/Psychology	Caucasian	middle class	no	2, middle	2 year college	4 year college
Robin	F	20	Junior, ECE/English	White	middle class	no	1, older	high school	high school
Theresa	F	23	Junior, ECE/Sociology	White	middle class	no	1, older	4 year college	high school

[1] as self-defined by participants
[2]University Without Walls - Continuing Education Program with individualized majors
[3]ECE - Early Childhood Education

BIBLIOGRAPHY

Arbab, Haleh (1995). The Image of the Teacher in Rural Colombia: An Inquiry into Themes, Metaphors, and Implications for Education. Unpublished doctoral dissertation University of Massachusetts, Amherst.

Baldwin, Beatrice et al. (1990). Personality Factors of Elementary and Secondary Preservice Teachers. Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, LA.

Baxter Magolda, Marcia B. (1992). *Knowing and Reasoning in College: Gender Related Patterns in Students' Intellectual Development.* San Francisco: Jossey-Bass Publishers.

Baxter Magolda, Marcia, B. (1990). Gender Differences in Epistemological Development. *Journal of College Student Development*, **31**, 555-561.

Belenky, Mary, F., Bond, Lynne & Weinstock, Jacqueline (1997). *A Tradition with No Name: Nurturing the Development of People, Families and Communities*. New York: Basic Books.

Belenky Mary F. & Clinchy, B.M. & Goldberger, N.R. & Tarule, J. M. (1986). *Women's Ways of Knowing: The Development of Self, Voice, and Mind.* New York: Basic Books

Bell, Nancy (1991). Early Childhood Teachers' Theories in Practice: What Do Teachers Believe? Paper presented at the Early Childhood Convention, Dunedin, New Zealand. (ERIC document ED 341500).

Benack, Suzanne (1984). Postformal Epistemologies and the Growth of Empathy. In: Commons at al. (Eds.) *Beyond Formal Operations: Late Adolescent and Adult Cognitive Development.* New York: Prager.

Berlak, Anne & Berlak, Harold (1981). *Dilemmas of Schooling: Teaching and Social Change*. London & New York: Methuen.

Berliner, D. (1986). In Pursuit of the Expert Pedagogue. *Educational Researcher*, **15** (7), 5-13.

Billig, M., Condor, S., Edwards, D., Gane, M., Middleton, D. & Radley, A. (1988). *Ideological Dilemmas: A Social Psychology of Everyday Thinking*, London: Sage Publications.

Blackman, Charles A. (1989) Issues in Professional Development: The Continuing Agenda. In Holly, M. L. & Mcloughlin, C. S. (Eds.) *Perspectives on Teacher Professional Development.* New York: Falmer Press.

Book, Cassandra, Byers, J. & Freeman D. (1983). Student Expectations and Teacher Education Traditions with Which We Can and Cannot Live. *Journal of Teacher Education* **34** (1), 9-13.

Britzman, Deborah , P. (1991). *Practice Makes Practice: A Critical Study of Learning to Teach.* Albany NY: State University of New York Press.

Britzman, Deborah, P (1986). Cultural Myths in the Making of the Teacher: Biography and Social Structure in Teacher Education. *Harvard Educational Review* **56** (4), 442-456.

Bullough, Robert, V. (1991). Exploring Personal Teaching Metaphors in Preservice Teacher Education. *Journal of Teacher Education,* **42** (1), 43-51.

Burden, Paul, R. (1990) Teacher Development. In Houston, R. (Ed.) *Handbook of Research on Teacher Education.* New York: Macmillan Publishing Comp.

Butt, Richard, Raymond, D. & Yamagishi, L. (1988). Autobiographical Praxis: Studying the Formation of Teachers' Knowledge. *Journal of Curriculum Theorizing,* **7** (4), 121-165.

Calderhead, James & Robson, M.(1991). Images of Teaching: Student Teachers' Early Conceptions of Classroom Practice. *Teaching & Teacher Education,* **7** (1), 1-8.

Calderhead, James (1983). Research into Teachers' and Student Teachers' Cognitions: Exploring the Nature of Classroom Practice. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada (ERIC document ED 229366).

Ciscell, Robert, E. (1987). Reasons for Becoming a Teacher: Media Myths and Faulty Expectations. *Action in Teacher Education,* **9** (2), 33-37.

Clandinin, Jean, D. & Connely, Michael, F. (1991). Narrative and Story in Practice and Research. In D. A. Schon (Ed.) *The Reflective Turn: Case Studies In and On Educational Practice.* New York: Teachers College Press.

Clandinin, Jean, D. & Connely, Michael, F (1986). Rhythms of Teaching: The Narrative Study of Teachers' Personal Practical Knowledge of Classrooms. *Teaching & Teacher Education,* **2** (4), 377-387.

Clark, Christopher, M. (1988). Asking the Right Questions about Teacher Preparation: Contributions of Research on Teacher Thinking. *Educational Researcher, 17 (3), 5-12.*

Clark, Christopher, M. & Lampert, Magdalene (1986). The Study of Teacher Thinking: Implications for Teacher Education. *Journal of Teacher Education,* 37 (5), 27-31.

Clark, Christopher, M. & Yinger, Robert, J. (1977). Research on Teacher Thinking. *Curriculum Inquiry,* **7** (4), 279-304.

Clinchy, Blythe & Zimmerman, C. (1985). Growing up Intellectually: Issues for College Women. Stone Center Work in Progress Papers, Wellesley MA.

Clinchy, Blythe & Zimmerman, C. (1982). Epistemology and Agency in the Development of Undergraduate Women. In: Perun, P. (Ed.) *The Undergraduate Woman: Issues in Educational Policy.* Lexington, MA: Lexington Books.

Cohen, Margaret, W. (1983). Teacher Concerns: Developmental Changes in Preservice Teachers. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec.

Cole, Andra, L. (1989). Making Explicit Theories of Teaching: Starting Point in Preservice Programs. Paper presented at the Annual Meeting of the American Educational Research Association , San Francisco, CA (ERIC document ED 308163).

Connely Michael, F. & Clandinin, J.D. (1990). Stories of Experience and Narrative Inquiry, *Educational Researcher,* **19** (5), 2-14.

Conway, Jill, K. (1987). Politics, Pedagogy, and Gender. In Conway, Bourque, Scott (Eds.) *Learning about Women: Gender, Politics, and Power.* Ann Arbor: University of Michigan Press.

Dannefer, D. (1984). Adult Development and Social Theory: A Paradigmatic Reappraisal. *American Sociological Review*, **49**, 100-116.

Delpit, L. (1988) Skills and Other Dilemmas of a Progressive Black Educator. *Harvard Educational Review* , **56**, 379-385.

Dewey, John (1904/65) The Relation of Theory to Practice in Education. In M. Borrowman (Ed.) *Teacher Education in America.* New York: Teacher's College Press.

Dewey, John (1933). *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process.* Boston: D.C. Heath and Comp.

Dewey, J. (1938/63). *Experience and Education,* New York: Collier.

Dickie, Barrie, T. (1991) Towards a Critical Practice of Teacher Education in Australia. *Action in Teacher Education,* **13** (3), 43-47.

Elbaz, Freema (1993). The Development of Knowledge in Teaching: What Can We Learn from the Expert, the Novice, and the 'Experienced' Teacher? In Kremer-Hayon, L., Vonk, H.,C. & Fessler R. (Eds.) *Teacher Professional Development: A Multiple Perspective Approach.* Berwyn, PA: Swets & Zeitlinger.

Elbaz, Freema (1987). Teachers' Knowledge of Teaching: Strategies for Reflection. In Smyth, J.(Ed.) (1987). *Educating Teachers: Changing the Nature of Pedagogical Knowledge* . New York: Falmer Press.

Elbaz Freema (1983). *Teacher Thinking: A study of Practical Knowledge.* New York: Nichols.

Elbow, Peter (1973). The Doubting Game and the Believing Game: An Analysis of the Intellectual Enterprise. Appendix to Writing Without Teachers. London: Oxford University Press.

Erikson, Erik, H. (1959). Identity and the Life Cycle. *Psychological Issues Monograph,* No 1.

Erikson, Erik, H. (1963). *Childhood and Society.* (2nd ed.) New York: Norton.

Feather, Norman, T. (1982) *Expectations and Actions: Expectancy-Value Models in Psychology.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Featherstone, Helen (1993). Learning from the First Years of Classroom Teaching: The Journey In, The Journey Out. *Teachers College Record,* **95** (1), 93-112.

Feiman-Nemser, Sharon & Melnick, S. (1992). Introducing Teaching. In Feiman-Nemser, S. & Featherstone. H. (Eds.) *Exploring Teaching: Reinventing the Introductory Course*. New York: Teachers College Press.

Feiman-Nemser, Sharon (1990). Teacher preparation: Structural and Conceptual Alternatives. In Houston, R. (Ed.). *Handbook of Research on Teacher Education.* New York: Macmillan.

Feiman-Nemser, Sharon (1983). Learning to Teach. In Shulman, L. & Sykes, G.(Eds.). *Handbook of Teaching and Policy*, Longman: New York.

Feiman-Nemser, S. & Buchmann, M. (1989) Describing Teacher Education: A Framework and Illustrative Findings from a Longitudinal Study of Six Students. *Elementary School Journal*, **89** (3), 365-378.

Feiman-Nemser, Sharon & Buchmann, M.(1985). Pitfalls of Experience in Teacher Preparation. *Teachers College Record,* **87** (1), 53-65.

Feiman-Nemser, Sharon & Buchmann, M.(1986). The First Year of Teacher Preparation: Transition to Pedagogical Thinking. *Journal of Curriculum Studies,* **18** (3), 239-256.

Feiman, Sharon & Floden, Robert, E. (1981). A Consumer's Guide to Teacher Development. Michigan State University Institute for Research on Teaching (ERIC document ED 207970)

Fielstra, C. (1955). An Analysis of Factors Influencing the Decision to Become a Teacher. Journal of Educational Research, **48**, 659-667.

Floden, Robert, E. & Buchmann M. (1990). Philosophical Inquiry in Teacher Preparation. In Houston, R. (Ed.). *Handbook of Research on Teacher Education.* New York: Macmillan.

Floden, Robert, E. & Klinzing, H.G.(1990). What Can Research on Teacher Thinking Contribute to Teacher Preparation? A Second Opinion. *Educational Researcher,* **19** (4),15-20.

Freeman, Donald (1991). "To Make the Tacit Explicit": Teacher Education, Emerging Discourse, and Conceptions of Teaching. *Teaching & Teacher Education,* **7** (5/6), 439-454.

Freire, Paulo (1970). *Pedagogy of the Oppressed.* New York: Continuum.

Frusher, Susan, S. & Newton, Tom (1987). Characteristics of Students Entering the Teaching Profession. Paper presented at the Oklahoma Educational Research Symposium. (Eric document ED 308170).

Fuller, Frances, F. & Bown, O. H. (1975). Becoming a Teacher. In Ryan, K. (Ed.) *Teacher Education.* Chicago: University of Chicago Press.

Fuller, Frances, F. (1969). Concerns of Teachers: A Developmental Conceptualization. *American Educational Research Journal,* **6** (2), 207-226.

Gage, N.L. (1989). The Paradigm Wars and Their Aftermath: A "Historical" Sketch of Research on Teaching Since 1989. *Educational Researcher,* **18** (7), 4-10.

Garmon, Arthur, M. (1993). Preservice Teachers' Perception of the First Year of Teacher Preparation Program. Paper presented at the Annual Meeting of the American Educational Research Association , Atlanta, GA (ERIC document ED 359187).

Gehrke, Nathalie, J. (1981). A Grounded Theory Study of Beginning Teachers' Role Socialization Through Reference Group Relations. *Journal of Teacher Education,* **32** (6), 34-38.

Getzels, J., W. & Jackson, P.,W. (1963). The Teacher's Personality and Characteristics. In N. L. Gage (Ed.) *Handbook of Research on Teaching.* Chicago: Rand McNally & Comp.

Gilligan, C. , Rogers, A. & Brown, L. M. (1990). Epilogue: Soundings into Development. In: Gilligan et al. (Eds.) *Making Connections: The Relational Worlds of Adolescent Girls at Emma Willard School.* Cambridge MA: Harvard University Press.

Gilligan, Carol (1982). *In a Different Voice: Psychological Theory and Women's Development.* Cambridge, MA: Harvard University Press.

Ginzburg, M. (1988). *Contradictions in Teacher Education and Society.* Philadelphia, PA: Falmer Press.

Giroux, H. A. & McLaren, P (1986). Teacher Education and the Politics of Engagement: The Case for Democratic Schooling. *Harvard Educational Review,* **56**, 216-238.

Glaser, B.,G. & Strauss, A., L. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research.* Chicago: Aldine.

Good, Thomas, L. & Brophy, Jere, E. (1984) *Life in Classrooms.* (3rd ed.) Harper & Row Publishers: New York.

Goodlad, John, I. (1990). *Teachers for Our Nations Schools.* San Francisco: Jossey-Bass.

Goodman, Jesse (1988). Constructing a Practical Philosophy of Teaching: A Study of Preservice Teachers' Professional Perspectives. *Teaching & Teacher Education,* **4** (2), 121-137.

Goodson, Ivor (1981). Life Histories and the Study of Schooling. *Interchange,* **11** (4), 62-77.

Gore, Jennifer, M. & Zeichner, Kenneth, M.(1991). Action Research and Reflective Teaching in Preservice Teacher Education: A Case Study from the United States. *Teaching & Teacher Education,* **7** (2), 119-136.

Gould, Roger (1978). *Transformations: Growth and Change in Adult Life.* New York: Simon & Schuster.

Gould, Roger (1972). The Phases of Adult Life: A Study in Developmental Psychology. *American Journal of Psychiatry,* **129**, 521-531.

Grossman, Pamela, L.(1992). Why Models Matter: An Alternative View on Professional Growth in Teaching. *Review of Educational Research,* **62** (2), 171-179.

Grossman, Pamela (1991). Overcoming the Apprenticeship of Observation in Teacher Education Courses. *Teaching & Teacher Education,* **7** (4), 345-357.

Grossman, Pamela, L. & Richert, Anna, E. (1988). Unacknowledged Knowledge Growth: A Re-Examination of the Effects of Teacher Education. *Teaching & Teacher Education,* **4** (1), 53-62.

Haberman, Martin (1989). The Influence of Competing Cultures on Teacher Development. In Holly, M. L. & Mcloughlin, C. S. (Eds.) *Perspectives on Teacher Professional Development.* New York: Falmer Press.

Haberman, Martin (1984). Teacher Education in 2000. *Education and Urban Society*, **16** (4), 497-509.

Hardiman, Rita & Jackson, Bailey (1992). Racial Identity Development: Understanding Racial Dynamics in College Classrooms and on Campus. In: Adams, M. (Ed.) *Promoting Diversity in College Classrooms: Innovative Responses for the Curriculum, Faculty, and Institutions.* San Francisco: Jossey-Bass Publishers.

Hofer, Barbara, K. & Pintrich, Peter, R. (1997). The Development of Epistemological Theories: Beliefs about Knowledge and Knowing and Their Relation to Learning. *Review of Educational Research*, **67** (1), 88-140.

Hoffman, Nancy, J. (1986). Feminist Scholarship and Women's Studies. *Harvard Educational Review*, **56** (4), 512.

Hollingsworth, Sandra (1989). Prior Beliefs and Cognitive Change in Learning to Teach. *American Educational Research Journal*, **26** (2), 160-189.

Holly, Mary, L. & Walley, Carl (1989). Teachers as Professionals. In Holly & Mcloughlin (Eds.) *Perspectives in Teacher Professional Development.* New York: Falmer Press.

Holt-Reynolds, Diane (1992) Personal History-Based Beliefs as Relevant Prior Knowledge in Course Work. *American Educational Research Journal,* **29** (2), 325-349.

Holt-Reynolds, Diane (1991). Practicing What We Teach. Research Report 91-5. National Center for Research on Teacher Learning, East Lansing, MI.

Hunt, David, E. (1976). Teachers Adaptation: 'Reading' and 'Flexing' to Students. *Journal of Teacher Education,* **27** (3), 268-275.

Hunt, David, E. (1970). A Conceptual Level Matching Model for Coordinating Learner Characteristics with Educational Approaches. *Interchange,* **1** (3), 68-82.

Jackson, Philip, W. (1992). *Untaught Lessons.* New York: Teachers College Press.

Jacobs, Naomi (1989). Nontraditional Students: The New Ecology of the Classroom. *Educational Forum*, **53** (4), 329-336.

Kagan, Donna, M. (1992). Professional Growth among Preservice and Beginning Teachers, *Review of Educational Research,* **62** (2), 129-169.

Kagan, Donna, M. (1990). Ways of Evaluating Teacher Cognition: Inferences Concerning the Goldilock Principle. *Review of Educational Research,* **60** (3), 419-469.

Killion, Joellen, P. & Todnem, G.R.(1991). A Process for Personal Theory Building. *Educational Leadership,* **48** (6), 14-16.

Knefelkamp, L. & Widick, C. (1981). A Model for College Teaching. An unpublished instructional model.

Knight, Richard, S. & Duke, Charles, R. (1990). Knowing Your Audience: Pre- and Post-Assessment of Preservice Teachers' Attitudes and Perceptions. (ERIC document ED 319684).

Knowles, Gary, J. & Holt-Reynolds, Diane (1994). Personal Histories a Medium, Method, and Milieu for Gaining Insights into Teacher Development. *Teacher Education Quarterly*, **21**(1) 5-12.

Knowles, Gary, J. & Holt-Reynolds, Diane (1991). Shaping Pedagogies through Personal Histories in Preservice Teacher Education. *Teachers College Record,* **93** (1), 87-113.

Kohlberg, L. & Mayer, R. (1972). Development as the Aim of Education. *Harvard Educational Review*. **42** , 449-496.

Korthagen, Fred (1993). The Role of Reflection in Teachers' Professional Development. In Kremer-Hayon, L., Vonk, H.,C. & Fessler R. (Eds.) *Teacher Professional Development: A Multiple Perspective Approach.* Berwyn, PA: Swets & Zeitlinger.

Kurfiss, Joanne (1983). Development in College: Perspectives, Processes, and Reflections on the Role of Writing. Paper presented at a Meeting of the Northern Rocky Mountain Educational Research Association (ERIC document ED 254145)

Kurfiss, J. (1982). Intellectual, Psychological, and Moral Development in College: Four Major Theories. In the Manual for Project QUE (Quality Undergraduate Education), Council for Independent Colleges, Washington, D.C.

Lampert, Magdalene (1990). When the Problem Is Not the Question and the Solution Is Not the Answer: Mathematical Thinking and Teaching. *American Educational Research Journal*, **27** (1) 29-63.

Lampert, Magdalene (1985). How Do Teachers Manage to Teach? *Harvard Educational Review,* **55** (2), 178-194.

Lampert, Magdalene & Clark, C. M.(1990). Expert Knowledge and Expert Thinking in Teaching: A Response to Floden and Klinzing. *Educational Researcher,* **19** (5), 21-23.

Leinhardt G. & Greeno J. G. (1986). The Cognitive Skill of Teaching. *Journal of Educational Psychology,* **78,** 75-95.

Levinson, Daniel (1978). *The Seasons of Man's Life.* New York: Knopf.

Lewis, Magda, G. (1993) *Without a Word: Teaching beyond Women's Silence.* New York: Routledge.

Lincoln, Yvonna S. & Guba, Egon, G. (1985). *Naturalistic Inquiry.* Beverly Hills, CA: Sage Publications.

Liston, Daniel, P. & Zeichner, K. (1991). *Teacher Education and the Social Condition of Schooling.* New York: Routledge.

Liston, Daniel, P. & Zeichner, K. (1987). Critical Pedagogy and Teacher Education. *Journal of Education,* 169 (3), 117-137.

Liu, Fang (1996). Parental Goals and Parent-Child Interaction in Immigrant Chinese Families: A Sociocultural Perspective. Unpublished dissertation proposal. University of Massachusetts, Amherst.

Locke, L. F., Spirduso, W. W. & Silverman, S. J. (1993). *Proposals That Work.* (3rd ed.) Newbury Park, CA: Sage Publications.

Loevinger, Jane (1976). *Ego Development: Conceptions & Theories.* San Francisco: Jossey-Bass.

Lortie, Dan, C. (1975). *Schoolteacher: A Sociological Study.* Chicago: University of Chicago Press.

Luke, Carmen & Gore, Jennifer (Eds.) (1992). *Feminisms and Critical Pedagogy.* New York: Routledge.

Luttrell, Wendy (1989). Working-Class Women's Ways of Knowing: Effects of Gender, Race, and Class. *Sociology of Education,* **62**, 33-46.

Lyons, Nona (1990). Dilemmas of Knowing: Ethical and Epistemological Dimensions of Teachers' Work and Development. *Harvard Educational Review,* **60** (2), 159-180.

Lyons, Nona (1983). Two Perspectives on Self, Relationships and Morality. *Harvard Educational Review,* **53**, 125-145.

Marshall, Catherine & Rossman Gretchen, B. (1995). *Designing Qualitative Research.* (2nd ed.) Thousand Oaks, CA: Sage Publications.

Marso, Ronald, N. & Pigge, Fred, L. (1992). Teachers' Ratings of Job Entry Expectations Prior to and Following First Year of Teaching: Evidence of Idealistic Expectations and Transition Shock. Paper presented at the annual meeting of the Midwestern Educational Research Association, Chicago, IL (ERIC document ED 351322).

Marso, Ronald, N. & Pigge, Fred, L. (1986) The Influence of Student Characteristics on Their Reasons for Entering Teacher Education (ERIC document ED 269364).

McAninch, Amy, R. (1993). *Teacher Thinking and the Case Method: Theory and Future Directions,* Teacher College Press: New York.

McDiarmid, Williamson, G. (1992). Tilting the Webs of Beliefs: Field Experiences as a Means of Breaking with Experience. In Feiman-Nemser, S. & Featherstone, H. (Eds.) *Exploring Teaching: Reinventing an Introductory Course*, New York: Teachers College Press.

McLaren, Peter (1994). *Life in Schools: An Introduction to Critical Pedagogy in the Foundations of Education.* White Plains NY: Longman.

McNeely, Sonja, R. & Mertz, Norma, T. (1990). Cognitive Constructs of Preservice Teachers: Research on How Student-Teachers Think about Teaching. Paper presented at the annual meeting of American Educational Research Association, Boston, MA (ERIC document ED 322116).

McNergney, R.,F. Herbert, J.,M. & Nuttycombe, D., G. (1993). Fitting Teacher Education to Teachers' Needs. In Kremer-Hayon, L., Vonk, H.,C. & Fessler R. (Eds.) *Teacher Professional Development: A Multiple Perspective Approach.* Berwyn, PA: Swets & Zeitlinger.

Merriam, Sharon, B. (1991). *Case Study Research in Education: A Qualitative Approach.* Newbury Park, CA: Sage Publications.

Mertz, Norma, T. & McNeely, Sonja, R. (1992). Pre-Existing Teaching Constructs: How Students "See" Teaching Prior to Training. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA (ERIC document ED 346075).

Mertz, Norma, T. & McNeely, Sonja, R. (1991). Cognitive Constructs of Preservice Teachers: How Students Think about Teaching before Formal Preparation. Paper presented at the annual meeting of the American Educational Research Association, Chicago, IL(ERIC document ED 331810).

Miles, Matthew, B. & Huberman A. Michael (1994). *Qualitative Data Analysis*. (2nd ed.) Thousand Oaks, CA: Sage.

Miller, Jean Baker (1984). The Development of Women's Sense of Self. Work in Progress Papers, Stone Center for Developmental Services and Studies, Wellesley College, Wellesley MA.

Miller, Jean Baker (1976). *Toward a New Psychology of Women.* Boston: Beacon Press.

Moore, W.S. (1989). The "Learning Environment Preferences": Exploring the Construct Validity of an Objective Measure of the Perry Scheme of Intellectual Development. *Journal of College Student Development*, **30**, 504-514.

Munby, Hugh (1986). Metaphor in the Thinking of Teachers: An Exploratory Study. *Journal of Curriculum Studies,* **18** (2), 197-209.

Munby, Hugh & Russell, Tom (1990). Metaphor in the Study of Teachers' Professional Knowledge. *Theory into Practice*, **29** (2), 122-127.

National Center for Educational Statistics (1993). Digest of Educational Statistics. U.S. Department of Education, Office of Educational Research and Improvement.

Needels, Margaret, C.(1991). Comparison of Student, First Year, and Experienced Teachers' Interpretations of a First-Grade Lesson. *Teaching & Teacher Education,* **7** (3), 269-278.

Nias, Jennifer (1989). Teaching and the Self. In Holly, M.L. & Mcloughlin, C.S. (Eds.) *Perspectives on Teacher Professional Development.* New York: Falmer Press.

Nieto, Sonia (1996). *Affirming Diversity: The Sociopolitical Context of Multicultural Education.* (2nd ed.) White Plains, NY: Longman.

Noddings, Nel (1993). Excellence as a Guide to Educational Conversation. *Teachers College Record,* **94** (4), 730-743.

Noddings, Nel (1988) An Ethic of Caring and Its Implications for Instructional Arrangements. *American Journal of Education,* **96** (2), 215-230.

Noddings, Nel (1984). *Caring: A Feminine Approach to Ethic & Moral Education.* Berkeley: University of California Press.

Oja, Sharon, N. (1989). Teachers: Ages and Stages of Adult Development. In Holly, M.L. & Mcloughlin, C.S. (Eds.) *Perspectives on Teacher Professional Development.* New York: Falmer Press.

Oja, Sharon, N. & Sprinthall (1978). Psychological and Moral Development for Teachers. In N.A. Sprinthall & R.A. Mosher (Eds.) Value Development: The Aim of Education. Schenectady, NY: Character Research Press.

O'Laughlin, Michael (1991). Undergraduate and Graduate Student Teachers' Developing Understanding of Teaching and Learning: Report of a One-Year Journal Study and a Follow-Up Interviews. Paper presented art the annual meeting of the American Educational Research Association, Chicago, IL (ERIC document ED 335306).

O'Laughlin, Michael (1990). Evolving Beliefs about Teaching and Learning. The View from Hofstra University: A Perspective on Teachers' Beliefs and their Effects. Paper presented at the Annual Meeting of the American Educational Research Association (ERIC document ED 327478)

Pahares, Frank (1993). Preservice Teachers' Beliefs: A Focus for Teacher Education. *Action in Teacher Education,* **15** (2), 45-53.

Pallante, Joan, A. (1993). Selected Perspectives on Teacher Reform Efforts. *Action in Teacher Research,* **15** (2), 25-33.

Palmer, Parker, J. (1987). Community, Conflict, and Ways of Knowing: Ways to Deepen Our Educational Agenda. *Change,* **19** (5), 20-25.

Patton, Michael, Q. (1990). *Qualitative Evaluation and Research Methods.* (2nd ed.) Newbury Park, CA: Sage Publications.

Perry, William, G. (1970). *Intellectual and Ethical Development in the College Years: A Scheme.* New York: Holt, Rinehart & Winston.

Perry, W.,G. (1981). Cognitive and Ethical Growth: The Making of Meaning. In A. Chickering (Ed.) *The Modern American College: Responding to the New Realities of Diverse Students and Changing Society*. San Francisco: Jossey-Bass Inc.

Pigge, Fred, L & Marso R., N. (1986a). Relationships between Student Characteristics and Change in Attitudes, Concerns, Anxieties and Confidence about Teaching During Teacher Preparation. Paper presented at the Annual Meeting of the American Educational Research Association , San Francisco, CA.

Pigge, Fred, L & Marso R., N. (1986b). Influences of Personal and Academic Characteristics on Beginning Teacher Education Students' Attitudes, Concerns, and Anxieties Toward Teaching. Paper presented at the annual meeting of the Association of Teacher Educators, Atlanta, GA. (ERIC document ED 266140)

Pipher, Mary (1994). *Reviving Ophelia: Saving the Selves of Adolescent Girls.* New York: Ballantine Books.

Polanyi, Michael (1958). *Personal Knowledge.* Chicago: The University of Chicago Press.

Program Folio (1994). Early Childhood Teacher (N-3). Early Childhood Education and Development Program, University of Massachusetts, Amherst.

Richards, Janet, C. et al. (1989). Phychological and Personal Dimensions of Prospective Teachers' Reflective Abilities. Paper presented at the Annual Meeting of the American Educational Research Association , San Francisco, CA (ERIC document ED 306214).

Richards, R. (1960). Prospective Students' Attitudes towards Teaching. Journal of Teacher Education, 11, 375-380.

Rodriguez, Alberto, J. (1993). A Dose of Reality: Understanding the Origin of the Theory/Practice Dichotomy in Teacher Education from the Students' Point of View. *Journal of Teacher Education,* **44** (3), 213-222.

Roth, W. M. & Roychoudhury, A. (1994). Physics Students' Epistemologies and Views about Knowing and Learning. *Journal of Research in Science Teaching*, **31** (1), 5-30.

Sarason, Seymour, B. (1971). *The culture of the School and the Problem of Change.* Boston: Allyn and Bacon.

Sarason, Seymour, B. & Davidson, K., S. & Blatt B. (1986).*The Preparation of Teachers: An Unstudied Problem in Education.* (2nd ed.) Brookline Books, Cambridge, MA.

Scheffler, I. (1960). *The Language of Education.* Springfield, IL: Charles C Thomas.

Schommer Marlene & Walker, Kiersten (1995). Are Epistemological Beliefs Similar Across Domains? *Journal of Educational Psychology*, **87** (3), 424-432.

Schon, Donald, A.(1983). *The Reflective Practitioner: How Professionals Think in Action.* New York: Basic Books.

Schuman, David (1982). *Policy Analysis, Education, and Everyday Life*. Lexington MA: D.C. Heath and Comp.

Seidman, I. E. (1991). *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences*. New York: Teachers College Press.

Sexton, Patricia, Cayo (1961). *Education and Income: Inequalities of Opportunity in our Public Schools*. New York: The Viking Press.

Sheehy, Gail (1976). *Passages: Predictable Crises of Adult Life*. New York: Dutton.

Shor, Ira (Ed.) (1987). *Freire for the Classroom: A Sourcebook for Liberatory Teaching*. Portsmouth, NH: Heinemann/Boynton Cook.

Shor, I. (1992). *Empowering Education: Critical Teaching for Social Change*. Chicago: The University of Chicago Press.

Shulman, Lee S. (1987). Knowledge and Teaching: Foundations of the New Reform, *Harvard Educational Review,* **57** (1), 1-22.

Shulman, L., S. (1986). Those Who Understand: Knowledge Growth in Teaching. *Educational Researcher,* **15** (2), 4-14.

Sigel, I. (1985). A Conceptual Analysis of Beliefs. In I. Sigel (Ed.) *Parental Belief Systems: The Psychological Consequences for Children*, Hillsdale, NJ: Erlbaum.

Sikula, John (1990) National Commission Reports of the 1980s. In Houston, R. (Ed.) *Handbook of Research on Teacher Education*. Macmillan Publishing Comp., New York.

Smyth, John (1989). Developing and Sustaining Critical Reflection in Teacher Education. *Journal of Teacher Education,* **40** (2), 2-9.

Solliday, M.,A. & Jacko, C., M. (1986). *Second Semester Teacher Education Students' Perceptions of Selected Standards and Tasks of Teaching*. Paper presented at the Annual Convention of the Mid-Western Educational Research Association, Chicago, IL (ERIC document ED 281837).

Sprinthall, Norman A. & Thies-Sprinthall, Lois (1983). The Need for Theoretical Frameworks in Educating Teachers: A Cognitive-Developmental Perspective. In Howey K. & Gardner W.E. (Eds.) *The Education of Teachers: A Look Ahead.* New York: Longman.

Stone, Lynda (1987). Book Review of Women's Ways of Knowing. *Teachers College Record,* **89** (2), 307-312.

Tabachnick, Robert, B. & Zeichner, K., M. (1985). The Development of Teacher Perspectives: Final Report. Wisconsin Center for Education Research, Madison. (ERIC document ED 266099)

Taylor, Steven, J. & Bogdan Robert (1984). *Introduction to Qualitative Research Methods.* (2nd ed.) New York: John Wiley & Sons.

Thies-Sprinthall Lois & Sprinthall N. A. (1987). Preservice Teachers as Adult Learners: A New Framework for Teacher Education. In M. Haberman & Backus J. M. (Eds.) *Advances in Teacher Education*, Vol. 3, 35-56. Norwood NJ: Ablex.

Tobin, Kenneth (1990). Changing Metaphors and Beliefs: A Master Switch for Teaching. *Theory into Practice,* **29** (2), 122-127.

Tom, Alan R. (1984). *Teaching as a Moral Craft.* New York: Longman.

Tom, A. R. (1985). Inquiring into Inquiry-Oriented Teacher Education. *Journal of Teacher Education,* **36**, 35-44.

Tom, Alan, R.(1987).Replacing Pedagogical Knowledge with Pedagogical Questions. In Smyth J.(Ed). *Educating Teachers: Changing the Nature of Pedagogical Knowledge.* New York: Falmer Press.

Tom, A., R. & Valli, L. (1990). Professional Knowledge for Teachers. In Houston, R. (Ed.) *Handbook of Research on Teacher Education.* New York: Macmillan Publishing Comp.

Trumbull, Deborah, J.(1986). Teacher's Envisioning: A Foundation for Artistry. *Teaching & Teacher Education*, **2** (2), 139-144.

Valli Linda (1990). Moral Approaches to Reflective Practice. In Clift, Houston, Pugach (Eds.) *Encouraging Reflective Practice in Education.* New York: Teachers College, Columbia University.

Valli Linda (1993). Reconsidering Technical and Reflective Concepts in Teacher Education. *Action in Teacher Research,* **15** (2), 35-44.

van Manen, Max (1977). Linking Ways of Knowing with Ways of Being Practical. *Curriculum Inquiry,* **6** (3), 205-228.

Veenman, Simon (1984). Perceived Problems of Beginning Teachers. *Review of Educational Research,* **54** (2), 143-178.

Vygotsky, Lev, S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.

Weinstein, Carol, S. (1990). Prospective Elementary Teachers' Beliefs about Teaching: Implications for Teacher Education. *Teaching and Teacher Education,* **6** (3), 279-290.

Weinstein, Carol, S. (1989). Teacher Education Students' Preconceptions of Teaching. *Journal of Teacher Education,* **40**, 53-60.

Weinstein, Carol, S. (1988). Preservice Teachers' Expectations about the First Year of Teaching. *Teaching and Teacher Education,* **4** (1), 31-40.

West, Brad (1986). Profiles of Entering Michigan State University Teacher Education Students. 1985-1986 Academic Year. Research and Evaluation in Teacher Education: Program Evaluation Series No. 12.

Widick, C. & Simpson, D. (1978) Developmental Concepts in College Instruction. In Parker, A. (Ed.) *Encouraging Development in College Students*, University of Minnesota.

Wilson, Suzanne, M. (1992). Thinking about Teaching, Teaching about Teaching. In Feiman-Nemser, S. & Featherstone. H. (Eds.) *Exploring Teaching: Reinventing the Introductory Course*. New York: Teachers College Press.

Zeichner, Kenneth, M. (1984) Individual and Institutional Influences on the Development of Teacher Perspectives. In *Tabachnick & Zeichner. The Development of Teacher Perspectives: Final Report.* Wisconsin Center for Education Research, Madison. (ERIC document ED 266099)

Zeichner, Kenneth, M. & Liston, D.P.(1987). Teaching Student Teachers to Reflect. *Harvard Educational Review,* **57** (1), 23-48.

Zeichner, K.M. & Liston D.P. (1990). Traditions of Reform in U.S. Teacher Education. *Journal of Teacher Education,* **41** (2), 3-20.

Zimpher, N. (1989). The RATE Project: A Profile of Teacher Education Students. *Journal of Teacher Education*, **30** (6), 27-30.

Zitlow, Connie S. (1986). A Search for Images: Inquiry with Preservice English Teachers (ERIC document ED 284211).

Zulich, Jan Bean, T.,W. & Herrick, J. (1992). Charting Stages of Preservice Teacher Development and Reflection in a Multicultural Community through Dialogue Journal Analysis. *Teaching & Teacher Education,* **8** (4), 345-360.